JANUARY 2005

Works in Progress:
A Report on Middle and High School Improvement Programs

THE COMPREHENSIVE SCHOOL REFORM QUALITY CENTER

The Comprehensive School Reform Quality Center
American Institutes for Research
1000 Thomas Jefferson Street, NW
Washington, DC 20007
Toll-free telephone: 866–544–8686
E-mail: csrq@air.org
Web site: http://www.csrq.org

Introduction

There is much to celebrate about American middle and high school education. Today, our public schools provide educational opportunities unavailable to millions of people from previous generations (Resnick, 2004). 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. Indicators of progress show that scores by fourth- and eighth-grade students on the National Assessment of Educational Progress (NAEP) have risen since 2000, that high school students are taking more demanding coursework, that more students are going on to post-secondary education, and that schools are safer than they were during the past decade (Jennings and Hamilton, 2004).

However, we also know that despite our best intentions and efforts, too many middle and high school students continue to be left behind. For example, a recent review of the state of education in middle school grades points to poor academic success of students in grades six through eight (Bradley & Manzo, 2000). Its authors conclude that, "So far, middle schools don't have much to boast about when it comes to student achievement." They also point out that poor and minority youth—those who need to be supported the most—are doing the worst.

The situation in grades 9–12 is similar. Education journalist Thomas Toch observes that, "Today's comprehensive high schools educate perhaps a third of their students well. But about half of the students graduate ill-prepared for the rigors of college work, and another fifth do not graduate at all. That is just not good enough any more" (Toch, 2003). This statement is reinforced by the June 2003 NAEP report card on reading that indicates, "Serious problems loom at the high school level" (Schemo, 2003). The NAEP scores point to a disturbing decline in reading performance among 12th graders and add to earlier findings that indicate drops in math and science performance.

EFFORTS AT IMPROVEMENT

The need is clear: We must improve middle and high school education in this country for all students—particularly for poor and minority youth. The accountability requirements established by the *No Child Left Behind Act of 2001* (NCLB) translate this need into an urgent imperative. So far, however, most of the attention has focused on elementary school reform. Only recently have policymakers, researchers, foundations, and a variety of other organizations begun to attend to the challenging work of middle and high school improvement. (For more information, see "No Child Left Behind and High Schools" at http://www.ed.gov/about/offices/list/ovae/pi/hs/nclb.html.)

Policymakers

At its June 2003 convention, 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" (U.S. Conference of Mayors, 2003). Furthermore, in September 2004, the National Governors Association launched an initiative aimed at redesigning the American high school (see http://www.nga.org/chairman04). At the Federal level, the U.S. Department of Education has sponsored numerous meetings and provides ongoing support on high school improvement through its Office of Vocational and Adult Education (OVAE) (see http://www.ed.gov/highschool). For example, in 2003 OVAE issued a set of papers on high school reform (see http://www.ed.gov/about/offices/list/ovae/pi/hs/natsummit.html). Furthermore, in 2004, the White House announced Educating America, an initiative aimed at improving high schools, higher education, and job training (see http://www.whitehouse.gov/infocus/education/educating_america_policy_book.pdf).

Researchers

Researchers have contributed to our understanding of effective policies and practices to improve middle and high schools. For example, *Focus on the Wonder Years* examines and suggests solutions to many of the challenges facing middle schools (Juvonen, Le, Kaganoff, Augustine, & Constant, 2004). Additionally, reports such as *Using Rigorous Evidence to Improve Policy and Practice* (MDRC, 2004) and *All Over the Map: State Policies to Improve the High School* (Martinez & Bray, 2002) point the way to more effective research, practice, and policy at the high school level.

Foundations

In recent years several initiatives, sponsored by leading foundations, have provided the focus and funding necessary to significantly improve high schools:

- In 2000 the Bill & Melinda Gates Foundation initiated a National School District and Network Grants Program to reshape America's high schools (http://www.gatesfoundation.org/Education). The initiative's highest priority is to improve the educational experiences of low-income, minority students who attend large, urban comprehensive high schools. The Foundation observes that such high schools are characterized by a low level of personalization, a fragmented focus, and low expectations. Therefore, it advocates that students would be better served in smaller high schools that provide students with high-quality educational choices centered on the following characteristics:
  - All stakeholders share a coherent vision and strategy.
  - Each grade enrolls 100 students or less.
  - All schools have a common focus, high expectations, increased personalization, and a climate of respect and responsibility; allow time for staff collaboration and opportunities for students to demonstrate knowledge acquired through performance; and use technology as a tool to enhance learning.
  - Teaching and learning is characterized by active inquiry, in-depth learning, and performance-based assessments.
- The Ohio High School Transformation Initiative, funded through the KnowledgeWorks Foundation of Ohio (http://www.kwfdn.org), seeks to transform large urban high schools throughout the state into autonomous smaller schools, each comprising learning communities of approximately 400 students. The purpose is to focus on relationships that will help to improve connections between people, places, resources, and ideas. The initiative seeks to increase academic achievement, provide safer schools, increase graduation rates, improve student attendance, increase teacher satisfaction, and improve parent, family, and community involvement.
- The Carnegie Corporation of New York (http://www.carnegie.org) is taking a leading role in high school reform through its New Century High Schools Consortium for New York City and Schools for a New Society initiative. Schools for a New Society seeks to improve the lowest performing comprehensive high schools in 10 urban school districts by redesigning each of them into smaller communities. It has also sponsored the creation of new secondary schools that serve grades 7–12.

Although none of these initiatives has yet to produce scientific evidence of student achievement gains, each shows promise of achieving this goal over time. For example, schools in the Gates Foundation's National School District and Network Grants Program have demonstrated promising outcomes such as greater levels of personalization, higher expectations, more time spent on collaboration, increased student interest in school, greater persistence in schoolwork, and stronger academic self-concepts. All these are considered predictors of future improved student achievement (American Institutes for Research & SRI International, 2004).

Organizations

In addition to the efforts of established organizations, such as the National Middle Schools Association (http://www.nmsa.org) and the National Association of Secondary School Principals (http://www.principals.org), a number of new organizations have risen to support improved outcomes at the middle and high school levels, including the Alliance for Excellent Education (http://www.all4ed.org), National Forum to Accelerate Middle Grades Reform (http://www.mgforum.org), and National High School Alliance (http://www.hsalliance.org). Still, others—such as Achieve (http://www.achieve.org), American Youth Policy Forum (http://www.aypf.org), and the Education Trust (http://www2.edtrust.org)—provide significant support to middle and high school educators through the sponsorship of meetings, publications, and other resources for improvement.

ABOUT THIS REPORT

Progress in middle and high school improvement is hampered by the complexity of secondary school reform in general, and by the lack of solid and usable evidence of what works to foster improvement at this level. Despite the efforts described previously, greater amounts of reliable information and assistance must be provided to middle and high school educators and education reformers so that they can undertake effective improvement.

Works in Progress: A Report on Middle and High School Improvement Programs is the Comprehensive School

Reform Quality (CSRQ) Center's initial contribution to this effort. It serves as a precursor to the CSRQ Center's publication series that will formally review middle and high school comprehensive school reform (CSR) models in Fall 2006. Future reports will use a research review framework to provide consumer guides on the evidence of effectiveness and quality of leading CSR models.

This report is prompted by the fact that, to date, educators and policymakers have had nowhere to turn to find an orientation of some of the most popular approaches that address key issues in middle and high school education. (See Appendix for a list of programs reviewed in this report.) As the title implies, *Works in Progress* reviews improvement efforts in a rapidly evolving field. We hope that it provides education decisionmakers with a research-based, user-friendly snapshot of a variety of programmatic approaches that have been tried during the past few years to meet the challenges of educating secondary level students. It is intended to help education consumers at the district and school levels make evidence-based decisions about how to improve outcomes for middle and high school students.

However, readers should keep in mind the limitations of this report. It is a survey of current practices and research on approaches that can be adopted by a school or district, not an exhaustive compendium of all efforts underway to improve middle and high schools. For example, the report does not review (a) current efforts to restructure middle schools into a K–8 configuration, (b) the impact of high quality professional development beyond that offered by individual programs as part of their implementation, and (c) the effectiveness of policy initiatives such as high school exit exams.

Although it reports on widely adopted programs and approaches, this report does not endorse their adoption. Many programs are included only to help illustrate the range of options available to educators, not necessarily because they have strong evidence regarding their effectiveness. In fact, although this is likely to change in the coming years, few of the programs or approaches described herein have strong evidence of effectiveness. Given the modest purpose of this report, we do not offer ratings of the strength of individual studies or the overall evidence base for programs reviewed. In addition, we encourage decisionmakers to avoid a one-size-fits-all approach that fails to match adopted reform approaches with the actual needs of the student populations being served, such as culturally and/or linguistically diverse students and those with disabilities. We hope that despite these limitations, this report helps to meet the urgent needs felt by middle and high school decisionmakers to identify promising approaches that will improve their schools.

The report's "Key Issues" section addresses challenges that middle and high school policymakers, principals, and teachers face today. The key issues we identified are:

- Middle school—
  - Transition from elementary to middle school.
  - Literacy and reading.
  - English language learners.
  - Violence and bullying.
  - Alcohol, tobacco, and other drugs.
  - Parental involvement.
- High school—
  - Transition from middle to high school.
  - Literacy and reading.
  - English language learners.
  - Dropouts.
  - Violence.
  - Alcohol, tobacco, and other drugs.
  - Transition from high school to a postsecondary setting.

For each challenge, we describe how the issue impacts student success, such as achievement and socioemotional development. We also illustrate how each challenge has been addressed in schools and districts, describing illustrative, widely adopted improvement approaches. Finally, we review the research-based evidence of how these approaches have worked in schools.

The next major section of *Works in Progress* reports on CSR and its status in the broader context of middle and high school improvement efforts. It describes and compares how selected middle and high school CSR models use various strategies and approaches to address key challenges. Several models are profiled:

- Middle school—
  - AIM at Middle-Grades Results.
  - Making Middle Grades Work.
  - Middle Start.
  - Success for All Middle School.
  - Talent Development Middle School Model.
  - Turning Points.
- High school—
  - Authentic Learning and Assessment for All Students (ATLAS) Communities.
  - First Things First.
  - High Schools That Work.
  - Talent Development High School Model.

The final section of the report summarizes findings regarding efforts to improve student outcomes at the middle and high school levels. Since we found the current base of research on improvement models to be limited in both quantity and quality, we make the case for acquiring more and better evidence to determine if and how models are meeting the needs identified at the middle and high school levels. The report concludes by pointing to future CSRQ Center work that will establish (a) the framework necessary

to make judgments about a model's evidence of effectiveness and quality and (b) reports that evaluate middle and high school CSR models.

The evidence is sparse regarding what works at middle and high schools. The need to improve is urgent. We issue this report, with all its limitations, in the spirit of that urgency, with the hope that its contents will help schools and districts improve the education of our youth.

HOW TO USE THIS REPORT

We hope that this entire report will be of interest and value to our readers. However, we recognize that educators and policymakers are busy individuals who may not have the time or need to read the entire report at one sitting. The report is designed so that interested readers may download, reproduce, and share individual sections (e.g., Transition from Middle School to High School, High School Dropouts, and Comprehensive School Reform). In this way, school boards, school staff study groups and committees, districts administrators, and all others interested in particular topics can take advantage of the report.

To facilitate navigation through the report, the PDF contains bookmarks of each major section. Readers may also navigate the document by clicking on any section listed in the Contents. For ease of access to additional resources, wherever possible, the report provides Web addresses that are hyperlinked to models, studies, organizations, and other materials. In addition, an appendix lists the names of all programs mentioned in the report and, when available, Web addresses are listed. (All Web addresses were current as of publication date, unless indicated otherwise, but they may change over time.)

For those readers who wish to download the entire report, it has been formatted so that it can be printed as a two-sided document. We hope that those who print the entire report will find it as a handy desk reference that supports efforts to bring effective and comprehensive reform to our nation's middle and high schools.

Key Issues Facing Middle Schools and High Schools

Introduction

Imagine that you are a middle or high school teacher or principal on the first day of a new school year. On a walk down the hallway, you might meet students much like the ones who are described below:

- Leslie, a new sixth grader, appears to be lost. In fact, many other students appear to be lost, too. As you help Leslie to get to her next class, you ask her which school she attended the previous year. You learn that she's coming from the lowest performing elementary school in the district. She may have a tough time with her schoolwork this year, since the amount of reading that Leslie will have to do in her main subjects will increase substantially.
- Malcolm, an entering eighth grader, is transitioning to your school this year. He made great academic strides at his previous school—maintaining a solid grade point average (GPA), forming a few good friendships, and participating in the school orchestra. However, Malcolm was bullied at his former school and is anxious about how things will go for him this year. Malcolm is also worried about how he will do when he attends the local high school, which enrolls nearly 2,000 students and has a reputation for low academic performance and high levels of violence and drug use.
- Mario is entering ninth grade, but he reads at a seventh grade level. He arrived in the United States with his family 4 years ago. Mario is eager to succeed but has difficulty reading science and history textbooks. He wants to work in the medical field, as a doctor or a nurse, but knows that he will have to improve his academic skills and performance to do so. Mario's parents are very proud of him but do not feel that they can help him much with his schoolwork or career aspirations. They both dropped out of school in eighth grade in their native country in order to work. Each holds two jobs, leaving little time to spend with Mario and his younger sisters. They are often left in the care of an older sister who also dropped out of school to get a part-time job and help support the family.

KEY ISSUES

America's middle and high schools are full of students like these and millions of others who need attention and support in order to succeed. They go to schools that strive to create academically challenging, safe, and supportive environments. Sometimes though, despite their best efforts and in the face of many challenges beyond their control, these schools fall short. As a result, many middle and high schools face several key issues:

- Middle school—
  - Transition from elementary to middle school.
  - Literacy and reading.
  - English language learners.
  - Violence and bullying.
  - Alcohol, tobacco, and other drugs.
  - Parental involvement.
- High school—
  - Transition from middle to high school.
  - Literacy and reading.
  - English language learners.
  - Dropouts.
  - Violence.
  - Alcohol, tobacco, and other drugs.
  - Transition from high school to a postsecondary setting.

These challenges, and the approaches that have been used to address them, form a short list of the various topics that this report could have covered. These topics were determined to be priorities as a result of an analysis of existing research, recent policy reports on middle and high schools, and topics of interest identified on Web sites of leading educational and public policy organizations. As those who work on the improvement of middle and high schools know, this list is far from exhaustive. For instance, middle and high school educators are constantly searching for more effective approaches to teaching mathematics and science, increasing student engagement and attendance, educating students with special needs, and reducing teen pregnancy. Likewise, policymakers have considered a variety of approaches, such as mandatory uniforms, year-round schooling, and eliminat-

ing social promotion, to improve schools beyond those covered in this report. Finally, we recognize that other nonschool factors, such as family income and educational attainment, availability of health and social services, and access to learning and teaching resources, can have a powerful impact on student outcomes (Barton, 2004).

Key Issues and Special Education

The issues raised in this report affect all students, including the more than 5 million students, ages 6–21, who are identified with a disability (Twenty-Fourth Annual Report to Congress, 2002. http://www.ed.gov/about/reports/annual/osep/2002/index.html.) To address middle and high school challenges, such as transition, violence, and literacy, middle and high school educators need to be aware of characteristics in the student population, such as the presence of a disability, that may impact potential solutions.

General and special education professionals are encouraged to collaborate and, when appropriate, to seek the expertise of nationally recognized leaders and organizations who focus on special populations, such as the:

- Council for Exceptional Children (CEC) (http://www.cec.sped.org).
- National Association of State Directors of Special Education (NASDSE) (http://www.nasdse.org).
- U.S. Department of Education, Office of Special Education Programs (http://www.ed.gov/osers/osep).

It is educationally advantageous for all students to be in a middle or high school setting in which educators across disciplines share resources and knowledge about how best to address the diverse range of student learning needs, including those students with disabilities.

Given limitations of space and time, this report covers only a small set of key issues. For each issue, we provide illustrative programmatic responses, review the research supporting identified approaches, and suggest additional resources and actions that educators and policymakers can take to improve schools. The approaches that are highlighted were selected because they represent a range of possible responses, not necessarily because they do or do not have strong evidence of effectiveness. As will become clear, few programs have a strong research base. We did not conduct a systematic search for every possible research study on a key issue or program. Therefore, the research we cite is suggestive and far from definitive. For each issue, we report on what might work, or seems to have worked, in limited settings to provide education decisionmakers with a starting point on how best to support the education of middle and high school students.

RESEARCH ON MODELS AND APPROACHES

Educators often find that adopting programs that have track records of effectiveness may be easier than building new programs from scratch. However, the selection process is challenging, because many existing programs have not been researched sufficiently. In addition, interpretations of findings across evaluation studies are difficult to make because of variations in program implementation, characteristics of participating students, the rigor of the research design, and other factors. Nevertheless, there is still great value in paying close attention to the existing research when selecting improvement programs.

Educators and policymakers can act as critical consumers of research by considering the following key questions regarding the quality and relevance of any study:

1. Does the study provide sufficient detail on the implementation of the program to allow its replication? Structured and well-documented programs are easier to compare across evaluation studies and implement than less formal, unknown ones. Studies should include such information as the program's curriculum structure, materials, and duration; opportunities for professional training and ongoing support; student–teacher ratios; and if applicable, changes and adaptations to the program in the evaluated site.
2. Is there a detailed description of the study sample? This information will affect decisions regarding the relevance of the study's findings to different settings. Information to look for includes demographics, special needs, and achievement data. Statistical analysis of student outcomes by subgroup (e.g., achievement levels, socioeconomic status, race, ethnicity, and special needs) contributes to the interpretation of the findings.
3. Are there indications that the program is the likely source of changes in students' outcomes? Quantitative study designs that rule out the possibility of other, and perhaps unrecognized, factors that affect student outcomes typically compare the results of the intervention (study) group with that of a control (comparison)

group and administer study measures before the intervention begins. The gold standard for evaluation research is the randomized controlled trial (RCT). RCT relies on random assignment in an effort to cancel out all factors, other than the program under review, in determining effectiveness. Table 1 lists additional factors to be considered when determining claims of a cause-and-effect relationship between a program's implementation and students' outcomes.

4. Were reported findings based on appropriate methods of statistical analysis? Many factors can affect the appropriateness of statistical reporting. The most common is whether or not the author's statements about the program's impact on student outcomes on tests are of statistical significance (e.g., t tests, analysis of variance, and regression analysis).
5. Were the research findings explained using a theoretical framework or results of other empirical studies? Ideally, new research findings should converge with previous quantitative comparison studies, case studies, and/or theoretical models to strengthen the educators' confidence about findings on the program's successes or shortcomings.
6. Do you have confidence in the researchers? It is worthwhile to check if a report's researchers are affiliated with the program developer. The independence of program evaluators is likely to minimize any bias that might result from personal stakes in the program's success. Consumers should keep in mind that many programs conduct their own evaluations, which are often of high quality. If the evaluator is not an independent researcher, bias—or its appearance—may be minimized through standard research methods such as random assignment of participants to groups, standardized tests of student outcomes, standard protocols of data collection, publication in peer-reviewed journals, or reviews by neutral, third-party organizations.

In addition, readers will want to keep in mind the following common terms as they review this report or any research on program outcomes:

- Baseline data: Participants level of performance, behavior, or attitude at the beginning of the study,

TABLE 1

Factors of Program Implementation That Can Impact Students' Outcomes

Factor	Possible Outcome
Low implementation fidelity	There was a change in or a lack of implementation of important program components. *For example, teachers implemented the new instructional strategy for only a short time, maintaining their former instructional methods for the rest of the time.*
Lack of group equivalence	The intervention and control groups were not equivalent to begin with, or they became nonequivalent when participants dropped out of the study. These differences may be falsely interpreted as program effect or lack thereof. *For example, students in the intervention group performed higher than those in the control group before the program began, and these differences were erroneously attributed to the program's effects.*
Contamination/disruption	An event occurred during the study that affected the outcomes of one of the groups, creating a difference that may be falsely interpreted as program effect or lack thereof. *For example, students in the control group suffered from a local school event (e.g., natural disaster) that impaired their academic achievements; that event was not experienced by the intervention group.*
Poor timing of testing	Study measures were administered before the program ended or at a point of time that might have allowed for the possibility of an event differentially affecting one of the study groups. *For example, a program was administered during the academic year, but student outcomes were measured at the beginning of the following academic year. Many students in the intervention group participated in another summer program, thus further developing their knowledge and study skills.*
Lack of valid outcome measures	The study measures were not reliable, valid, or properly aligned with the content of the intervention. *For example, in assessing effectiveness of a reading program, a researcher administered a reading comprehension test that was composed specifically for the study. The test contained a few, poorly written questions. Students interpreted the questions in different ways. In addition, the questions did not test strands that were of interest to educators or aligned with state standards.*

- Case study: A form of qualitative research that is focused on providing a detailed account and analysis of one or more cases.
- Intervention group: The group in a research study that receives the treatment (or program, practice, etc.) of special interest in the study.
- Follow-up study: A study conducted to determine the characteristics of a group across a period of time.
- Gain score: The difference between pretest and posttest scores of a measure.
- Longitudinal design: A study in which information is collected at different points in time so that changes over time (usually of considerable length, such a several months or years) can be studied.
- Matching: A technique for making the intervention and control groups comparable on one or more variables at the beginning of the study.
- Meta-analysis: A quantitative technique used to integrate and describe the results of a large number of studies.
- Nonintervention control group: The group in a research study that is treated "as usual."
- Random assignment: A procedure that makes group assignments (i.e., to the either the intervention or control group) on the basis of chance, which maximizes the probability that the groups will be equal on all additional variables that might have an impact on results.

ORGANIZATION OF THE KEY ISSUES SECTIONS

Each section begins with a description of an issue (e.g., transition, literacy, dropout, etc.) that educators face. Next, some of the key challenges that educators face in improving the situation in their schools and districts are outlined. Then, some of the major responses that have been tried to address these issues, including illustrative examples and research findings, are described. Finally, a number of considerations are suggested that educators and policymakers should keep in mind as they address each key issue. Text boxes within each section expand on points made in the respective section and suggest additional resources to help address the key issue.

More Resources on Judging Research

- **Slavin, R. E. (2003). A reader's guide to scientifically based research. *Educational Leadership, 60,* 12–16. Retrieved December 1, 2004, from http://www.ascd.org/publications/ed_lead/200302/slavin.html**

  This article presents a review of criteria to use when selecting scientific research to review and how to evaluate the quality of the research.
- **Fashola, O. S. (2004). Being an informed consumer of quantitative educational research. *Phi Delta Kappa, 85,* 532–538.**

  This article includes a user-friendly description of the nature of scientific research. Specific guidelines are offered on how to evaluate the quality of an evaluation study and how to relate findings to the educator's own school or district context.
- **Stringfield, S. (1998, Fall). Choosing success. *American Educator.* Retrieved December 1, 2004, from http://www.aft.org/pubs-reports/american_educator/fall98/ChoosingSuccess.pdf**

  This is a practical guide on how to select a model, using criteria such as model goals, research base, and associated costs.
- **Lauer, P. A. (2004). A policymaker's primer on education research: How to understand, evaluate and use it. Aurora, CO: Mid-continent Research for Education and Learning, Denver, CO: Education Commission of the States. Retrieved December 1, 2004, from http://www.ecs.org/html/educationIssues/Research/primer/foreword.asp**

  This primer addresses how to determine the trustworthiness of research and whether research warrants policy changes. It also includes a statistics tutorial and a glossary.
- **U.S. Department of Education, Institute of Education Sciences. (2003). *Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide*. Washington, DC: Author. Retrieved December 1, 2004, from http://www.excelgov.org/usermedia/images/uploads/PDFs/User-Friendly_Guide_12.2.03.pdf**

  This publication points out the importance of using rigorous evidence and provides guidance when applying it to make CSR model adoption decisions.

Transition From Elementary to Middle School

School organization, school size, and school climate help to determine the success of students' transition from elementary to middle school. Educators often work to ease this transition by personalizing students' environment, increasing students' time with the same teachers, controlling the size of the learning community, and improving communication and collaboration among teachers who are assigned to the same students. Some students experience more severe adjustment difficulties in the first year of middle school and may need more extensive services.

INTRODUCTION

Students' transition from elementary to middle school is marked by many new experiences that have the potential to disrupt their emotional adjustment and academic performance (Juvonen et al., 2004). From fifth to seventh grade many students undergo many important developmental changes: cognitive, physical, and social (Lord, Eccles, & McCarthy, 1994). These changes, combined with the new and unfamiliar middle school environment, can impact students' developmental needs and academic achievements (Eccles, Lord, Roeser, Barber, & Jozefowicz, 1997). Although middle schools were established to address many developmental needs (e.g., greater student autonomy), these schools still struggle to make transition from elementary school smooth and less stressful and to provide support for students' academic success.

KEY CHALLENGES

Some students see the transition from elementary school to middle school as an opportunity for a fresh start, both academically and socially. However, the structure and classroom organization of middle schools can also impose new demands on students. Students who find it difficult to cope with these changes can experience a drop in academic performance and self-esteem (Mullins & Irvine, 2000). Researchers have noted three contextual factors that might make a student's transition to middle school difficult: shifting classrooms, school size, and tracking. These factors may mismatch students' developmental needs, hence reducing their ability to adjust to the middle school environment.

Shifting classrooms

Changing classrooms frequently can be one of the most intimidating parts of middle school (Akos, 2002). Because elementary schools are usually organized around self-contained classrooms with one teacher, a student may find it difficult to adjust to a larger middle school with many classes and subject-specific teachers (Lee & Smith, 1993).

School size

A student moving from a smaller elementary school to a larger middle school may experience difficulties adjusting to less interaction with teachers. Some students entering middle school are more prone than others to feel disengaged from the learning process and alienated from their teachers and peers. For example, Hispanic students may be more likely than other students to perceive the transition as difficult (Akos & Galassi, 2004). This disengagement may stem from the often larger size and impersonal quality of middle schools and may ultimately result in lower academic achievement levels, lower levels of parent contact and involvement, and less positive school climate (Mertens, Flowers, & Mulhall, 2001).

Tracking

Middle school educators struggle to develop an effective approach to instructional grouping. Tracking—placing students in instructional groups based on ability—is intended to provide students with an academic environment that is targeted more toward their individual needs. Sometimes, students may be grouped together for core subjects but not for electives. Yet, tracking may exaggerate differences between students, promote the labeling of students, and make some students feel academically superior or inferior to their peers. Moreover, when students are incorrectly assigned to a track or are tracked by gender or ethnicity, their educational environment may not fit their academic needs (Braddock, 1990).

What Do Transitioning Students Worry About?

- Getting to class on time.
- Bringing the right materials to class.
- Finding and using lockers.
- Finding lunchrooms and bathrooms.
- Getting through crowded halls.
- Remembering which class to go to next.
- Dealing with older students.
- Having tougher teachers.
- Having harder schoolwork.
- Having trouble making new friends.
- Having the school be located far from home.

(Sources: Arowosafe & Irvine, 1992; Elias, Gara, & Ubriaco, 1985; Odegaard & Heath, 1992)

RESPONSES TO KEY CHALLENGES

To ease transition from elementary to middle school, common practices attempt to address the student's needs and concerns and also to provide developmentally appropriate instructional services that will enable him/her to experience academic success. These practices often include block scheduling, looping, interdisciplinary teams, small learning communities and schools, orientation programs, and coordinated feeder strategies.

Block scheduling

Through block scheduling, schools essentially lengthen class periods so that students have fewer classes per day; thereby, they may enjoy different instructional techniques that otherwise could not be implemented in class periods of 45 or 50 minutes. Different schools may have different reasons for implementing block scheduling. For example, some schools may observe the need to allow students to spend more time with their teachers, therefore receiving more personalized instruction. Other schools may implement block scheduling to allow more time for conducting labs and covering advanced topics with motivated students, teacher planning, and dealing with discipline problems (National Middle School Association, 2000). Some teachers may see changing to block scheduling as a challenging task, because it requires altering instructional plans and bus schedules, renegotiating contract agreements with staff members, and, in some cases, looking for additional funding (Lewis, 1999).

Examples and research findings

A study conducted by Cobb, Abate, and Baker (1999) investigated the effects of a 4 x 4 Semester Plan on students' academic achievement. (See "Types of Popular Block Scheduling Plans" for a description of this and other common block scheduling plans.) The study was conducted on 355 students who were enrolled in grades 8–11. The researchers found that students receiving block scheduling had significantly higher scores in a standardized math test and a higher cumulative GPA than students with similar demographic characteristics and academic backgrounds who did not receive block scheduling. No impact was found on scores in standardized reading and writing tests. These results did not vary by grade level, suggesting that this approach may be equally effective in both middle and high school grades.

Two studies reported by Lewis et al. (2003) compared the effects of traditional scheduling with two types of block scheduling—the 4 x 4 Semester Plan and the Alternate Day Block (AB) Plan. Participants were drawn from two junior high schools in Colorado. One school implemented both types of block scheduling, but the second school also implemented traditional scheduling. Students in the block scheduling and traditional scheduling groups were matched by their academic performances. The first study analyzed the effects of block scheduling on achievement in the language arts, and the second study focused on science achievement. Students' achievements in language arts benefited more from both types of block scheduling than from traditional scheduling. In addition, students' science achievements benefited more from the 4 x 4 Semester Plan than they did from the AB Plan and traditional scheduling. Finally, data from both studies showed that block scheduling had a larger positive impact on low-achieving students than traditional scheduling.

In addition to controlled experimental findings, claims on the effectiveness of block scheduling were documented in various case studies. For example, in a case study of high schools in Broward County, Florida, approximately 50 percent of school counselors reported that when block scheduling was implemented, discipline problems between class changes decreased (Deuel, 1999). With fewer class changes each day, students had fewer opportunities to interact in negative ways with their peers. More controlled movement in the hallways also resulted in less hallway traffic and fewer fights.

It should be noted that adopting block scheduling does not automatically improve adjustment to and academic performance in middle school. Several concerns about block scheduling have been raised by educators and researchers (Dougherty, 1997). Implementation is one concern. Students transitioning to middle school may find it difficult to focus their attention on the material for 90 minutes of class time. This difficulty may be minimized only if teachers change their regular instructional plan and conduct more student-centered instruction. Block scheduling may also result in reduced total course time. As a result, teachers may not be able to cover all the material, especially higher-level material. Attendance problems are another concern. Missing 1 day of school in a block schedule format is equivalent to missing 2 or more days in a traditional schedule format. Students with poor attendance records may be at a disadvantage with this type of schedule, and their teachers may struggle with the responsibility of helping them catch up. Finally, block scheduling may not show the same benefits for all students and in all types of topic areas (e.g., science, math, and reading). When selecting the type of course schedule (e.g., traditional versus different types of block scheduling), school principals need to take into account the specific students' needs and the topic areas that will be covered (Lewis et al., 2003).

Looping

Looping, also known as student–teacher progression or multiyear teaching assignments, is the practice of having teachers move with their students from one grade to the next. Some educators see looping as a way to maintain a feeling of

Types of Popular Block Scheduling Plans

- 4 x 4 Semester Plan: Students enroll in four 90-minute courses that meet every day of the week for a semester, which equates to completing four year-long equivalent courses in one semester.
- Alternate Day Block (AB) Plan: Students and teachers meet in three or four 90–120 minute classes on alternating days for the entire school year.
- Extended Time Plan: Schools separate the academic year into three segments: two 75-day blocks, and one 30-day block. During the 75-day blocks, students enroll in three or four 90- to 120-minute courses daily. During the 30-day segment, students engage in remediation or enrichment activities.
- Trimester Plan: Students take two or three 120-minute classes for 60 days and two or three traditional-length classes for the entire year.

(Sources: Cobb, Abate, & Baker, 1999; Lewis et al., 2003)

continuity and stability for middle school students at a time when they are experiencing rapid emotional, social, environmental, and physical changes (McCown & Sherman, 2002).

Because looping offers teachers and students more time to build close relationships, students may feel more comfortable, and teachers may have a better grasp of each student's learning style (Burke, 1997; McCown & Sherman, 2002). It can also reduce or eliminate the time that teachers and students typically spend getting to know each other at the start of each year, thereby freeing time for more instructional work. Finally, looping may promote both parent–teacher communication and students' social relationships because it allows for these relationships to be maintained over longer periods of time. In some schools, both parents and teachers have the option of requesting a teacher replacement for the second year of the loop if they are not satisfied with the experience from the first year.

Examples and research findings

Currently there is a lack of rigorous quantitative research on the effects of looping in middle schools. Yet, case studies have been documented and suggest positive results. The principal of Tolland Middle School in Tolland, Connecticut, reported that eighth graders who had remained together with their teachers for 2 years got higher aggregate scores and separate subject scores in reading, writing, and math, than any previous eighth-grade class in the school's history (Lincoln, 1998). In addition, nearly 80 percent of the parents who were surveyed believed that looping improved home–school communication.

A case study of Indian Hills Middle School in Shawnee Mission, Kansas, documented the process and results of implementing a looping structure for students in seventh and eight grades. The principal, teachers, students, and parents who participated in the looping structure agreed that it had many benefits for students adjusting to the school (McCown & Sherman, 2002).

Interdisciplinary teams

An interdisciplinary team is a small group of teachers from two or more academic disciplines who share the responsibility of planning, teaching, and evaluating a common group of students (Alexander & George, 1993). Usually, interdisciplinary teams take responsibility for students' core academic classes, and the teams usually consist of no more than 80 students (Mertens, Flowers, & Mulhall, 2004). Through interdisciplinary teams, educators can create small, personalized learning environments for middle school students that may help to maintain coherent instruction and evaluation across subjects.

Examples and research findings

Generally, there is growing evidence on the positive impact of interdisciplinary teams on levels of student achievement and student self-esteem (National Middle School Association, 2004).

Technology Enhancing Achievement in Middle School (TEAMS) is a program that aims to improve students' achievement and adjustment to school by integrating technology, active learning, and interdisciplinary instruction into the middle school curriculum. The evaluator reported that the TEAMS approach had a positive effect on students' technology skills, abilities to work productively in a group, and attitudes toward school (Reiser, 1999). When comparing TEAMS' students with a matched nonintervention control group, the same evaluation yielded mixed results regarding TEAMS' effects on achievement. These findings are difficult to interpret because some of the schools did not adhere to the implementation principles.

Another study examined the effects of interdisciplinary teams on teachers' beliefs that they have the abilities to affect student performance (Warren & Payne, 1997). This study investigated the benefits of adding a collaborative planning time to the interdisciplinary teams approach. Collaborative planning time allows teachers to formally meet with colleagues and exchange ideas on how to meet students' needs. The researchers collected data in 12 middle schools from two intervention groups (interdisciplinary teams with and without collaborative planning time) and a nonintervention control group. The researchers found that teachers who worked in interdisciplinary teams with

collaborative planning time believed more in their abilities to affect student outcomes.

It should be noted that it is not interdisciplinary teaming per se that may be related to student achievement, but it may be the level of cooperation and quality of teaming. This was suggested in a study conducted by the Center for Prevention Research and Development (Flowers, Mertens, & Mulhall, 2000). Data collected from 70 middle schools indicated that interdisciplinary teams had the highest impact on classroom practices, and, in turn, on academic achievement, when the level of curriculum coordination and coordination of student assignments and assessments was high.

Small learning communities and schools

The approach of small learning communities and schools aims to achieve increased student performance, a positive school climate, a personalized learning environment, higher parental involvement, and greater cost efficiency. According to its advocates, small schools give teachers the opportunity to design and implement more individualized lesson plans and provide more one-on-one help in the classroom. Educators can organize middle schools into smaller learning communities in several ways. In some schools, educators have created distinct smaller schools inside a larger school building. These schools-within-a-school often share common facilities, but each smaller school has its own interdisciplinary teaching staff and student body. In other locations, educators have created smaller learning communities by establishing small, freestanding schools with their own facilities and staff members (Mertens, Flowers, & Mulhall, 2004).

Examples and research findings

In a study of 293 secondary schools in New Jersey, researchers used tests of basic skills in reading and math to investigate variations in students' performances by school size. Results of the analysis showed that when other school characteristics were controlled for, large school size was associated with lower academic achievement (Fowler & Walberg, 1991).

Another study investigated the effects of changes in classroom climate variables (e.g., satisfaction, friction, difficulty, cohesiveness, and competition) when students transferred from primary to secondary schools of different sizes (Ferguson & Fraser, 1999). Data were collected from 1,040 students from 47 feeder primary schools of various sizes and 16 linked secondary schools. Findings suggested that students from small-size elementary schools became more dissatisfied with the learning environment of a medium-size middle school than students who were transitioning from schools of similar sizes. Thus, students who transitioned to schools of similar size experienced the most favorable changes in school environment. Taken together, these findings suggest that smaller middle schools bring about more favorable learning environments to transitioning students.

Research shows mixed results with respect to the relationship between school size and students' psychological well-being. One study used longitudinal data on a nationally representative sample of approximately 13,000 students. It examined the relationship between school size and quality of transition to middle school, taking into account personal and background characteristics. Findings revealed that students in small public schools (400 students or less), especially males, were more likely to show lower levels of social and emotional adjustment (Watt, 2003). A possible explanation, offered by Watt, is that the anonymity associated with larger schools may be a relief for students whose personal or familial deficiencies place them at risk of peer teasing and harassment.

However, the individualized attention that smaller schools can offer has many important benefits, including safety. Self-reported data collected from 945 students from 39 middle schools in the United States revealed a significant association between school size and students' perceptions of their school. Students enrolled in large schools (1,000 to 1,399 students) reported significantly lower levels of school satisfaction and less teacher support than students enrolled in small schools (800 students or less). This study also found that students enrolled in large schools had a lower sense of school safety compared with students enrolled in small schools (Bowen, Bowen, & Richman, 2000).

Orientations

A transition or orientation program may also help ease the shift from elementary to middle school. Such programs are specifically designed to introduce students to the practical and conceptual differences between the schools. It is vital that school counselors, parents, teachers, and peers contribute to the orientation process, so that students have a variety of options to turn to if they are having difficulties with transitioning from elementary to middle school. Parents and school staff may work together to make signs and maps, give tours, and even make a video of the middle school, so that new students feel welcome and familiar in their new school environment (Akos, 2002).

Orientations may include information about routines that are typically different from elementary to middle school, the structure of the school building, and what to do when students face a problem (e.g., miss the school bus, cannot open their locker, face a social problem, etc.) (Cornille, Bayer, & Smyth, 1983). The information may also be provided in handouts forwarded to parents or placed on the school's Web site.

Peer-led orientation programs are also popular. A peer mentoring or ambassador program, where current middle

school students orient incoming students, may help ease the younger students' transition period and facilitate new friendships across grade levels (Akos, 2002).

Examples and research findings

Gambo (1995) found that a 1 or 2 week summer camp or orientation program prior to the fall semester may reduce students' anxiety about their transition to a new school. In these programs, students already enrolled in the middle school take new students on a guided tour of the building. This accomplishes two tasks: It allows the new students to feel more familiar and comfortable in their new educational environment and they can gain a sense of community by interacting with new peers. Currently, little research exists on the effect of orientation practices on students' achievements and well-being in middle school.

Coordinated feeder strategies

To ease students' transition from elementary school to middle schools, some districts try to coordinate feeder patterns. A feeder pattern is the path of all the elementary schools feeding into middle schools that then feed into one high school. Schools within a feeder pattern can work together to share data and decisionmaking. This collaboration may create a sense of community within the schools in the feeder pattern and promote increased parental involvement from kindergarten through 12th grade.

Examples and research findings

ATLAS Communities is a comprehensive approach designed to align curriculum, instruction, and assessment across a pre-K–12 feeder pattern. ATLAS considers local elementary, middle, and high schools that progressively educate many of the same students, to be a single seamless entity or pathway. The ATLAS Pathway Leadership Team helps to establish a common set of student expectations and to align systems and structures that support the instructional visions of students as they progress through school. A review of research on ATLAS Communities suggests that the model can have positive effects on student achievement (Northwest Regional Educational Laboratory & National Clearinghouse for Comprehensive School Reform, n.d.).

Project GRAD (Graduation Really Achieves Dreams) is a school reform program that targets students in inner-city, low-income communities. Project GRAD aims to improve the instructional quality and culture of feeder school systems. School principals in the entire feeder pattern meet on a regular basis to plan and share ideas, solve problems, and assess programs. Major components of the model are MOVE IT Math (a mathematics curriculum), Success for All (a reading curriculum), Consistency Management and Cooperative Discipline (CMCD) (an approach to classroom management and student discipline), Communities in School (for involving parents), and the Scholarship Program (for transitioning to higher education). Each part of these programs has been separately implemented and evaluated. However, combining them may make these programs even more effective. Both teachers and school principals are required to attend training specific to each program. Findings from a longitudinal assessment of Project GRAD suggest positive impact on middle school students' performances on standardized tests in reading and math (Opuni, 1999). However, further research is needed to compare the program's effects with a nonintervention control group.

CONSIDERATIONS

School organization, school size, and school climate are all likely to impact the academic achievement and stress experienced by students moving from elementary to middle school. During this transition, students' experiences vary, and some students are more vulnerable than others. Students at greater risk are those who have low academic self-esteem in elementary schools, those who do not believe in their abilities to be successful in school, and those who invest relatively little in academic success (Rudolph, Lambert, Clark, & Kurlakowsky, 2001). In addition to considering the general approaches listed above, school teachers and counselors can also help by identifying students who are most prone to difficulties during their first year in middle school and providing them with more individualized interventions. Such interventions may include additional teacher support regarding academic or personal difficulties, placement in peer support groups, and facilitation of the students' home environment by guidance counselors (Greene & Ollendick, 1993). In sum, the limited available research suggests that initiatives to ease the transition from elementary to middle school should be aimed at personalizing students' environment and focusing attention on specific students' difficulties and needs associated with this period of change.

More Resources on Student Transitioning

- **The National Forum to Accelerate Middle-Grades Reform (2004). *Policy statement: Small schools and small learning communities.* Newton, MA: Educational Development Center, Inc. Retrieved December 2, 2004, from http://www.mgforum.org/Policy/small%20communities/small%20communities.pdf**

  This research summary and policy statement encourages educators and policymakers to create small schools in middle school grade levels.

- **National Middle School Association. (n.d.). *Supporting students in their transition to middle school.* Waterville, OH: Author. Retrieved December 2, 2004, from http://www.nmsa.org/news/transition.html**

  This position paper lists specific activities that school leaders, teachers, counselors, and parents can do to assist students in the transition to middle school.

- **Schumacher, D. (1998). *The transition to middle school* (ERIC Digest). Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. ED42211998).**

  This digest presents a brief overview of some of the issues involved in the transition from elementary to middle school and provides suggestions for transition programs and activities.

Literacy and Reading: Middle School

Sixty-eight percent of the eighth graders in the United States have either not mastered or achieved only partial mastery of prerequisite literacy knowledge and skills that are fundamental for proficient work at that grade level. Recently there has been a growing demand for middle school reading and literacy programs and research-based evidence on their effectiveness. A variety of programs have been packaged for widespread distribution. Many of them include professional development for teachers and ongoing technical assistance. Educators agree that the success of these programs depends on matching instruction to students' needs, focusing on students' active involvement in the reading process, and practicing learning strategies across curriculum subject-matter areas.

INTRODUCTION

Literacy demands on students increase dramatically when transitioning from elementary school to middle school. Students are required to read a variety of text, textbooks, supplementary materials, and highly technical electronic text. Additionally, research, writing, and study skills are increasingly important to academic success in middle school (Roe, Stoodt, & Burns, 2001).

Many eighth graders are at risk of academic difficulties in middle school and beyond. A report from NAEP in 2000 (Campbell, Hombo, & Mazzeo, 2000) noted a decline in volume of reading and writing for 13-year-old students. This decline may go hand in hand with the large number of students who lack literacy skills. The 2003 NAEP reading results indicated that 26 percent of eighth graders performed at the below basic level and 42 percent scored at the basic level. These data indicate that 68 percent of eighth graders have either not mastered or achieved only partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at that grade level. Examples of the knowledge and skills that young readers often struggle with include comprehension, unfamiliar vocabulary, insufficient background knowledge, reading fluency, and engagement (Roe et al., 2001).

The risk of academic difficulties is particularly great for low-income families, in general, and low-income minority families, specifically poor African-American and Latino families (Strickland & Alvermann, 2004). Students from these groups usually attend schools with limited resources, inadequate facilities, large numbers of children with special needs, and high teacher turnover rates, all contributing further to an academic achievement gap (Carey, 2003).

KEY CHALLENGES

Three major areas influence the ability of young adolescents to be successful readers: student characteristics, the structure and complexities of secondary schools, and teacher preparation and practices at secondary schools. Middle school classrooms typically focus on specific content areas and include a range of abilities among students. Few students fall at one extreme or the other. Some have severe difficulties with reading that include problems with word recognition and decoding. Others are high-achieving students who easily handle complex reading tasks. However, the majority of students fall in the middle; that is, students who can read well but are unable to apply sophisticated comprehension strategies to complex texts. These students tend to approach every reading task in the same manner (Paris, Wasik, & Turner, 1991). Middle school classrooms also include students with special needs and students who are English language learners (Roe et al., 2001).

In middle school, reading is no longer a subject that is directly taught to students. The emphasis shifts to content area learning and acquiring facts primarily through textbooks. When teachers assign reading and realize that students do not or cannot complete the assignment, they often find ways to circumvent the need for students to read by presenting all the facts through a lecture or a handout. Middle school teachers and administrators generally view English teachers as the source for reading instruction, often seen as synonymous with teaching literature. Finally, there may be few opportunities for students to have choices in their reading or the way that assignments and projects are to be completed (Alvermann & Moore, 1991).

> **"The English language development aspect of bilingual education and bilingual special education is cited as a major problem, especially for special education students who may be excluded because they cannot keep up the pace."**
>
> **(Source: Gersten & Baker, 2000)**

Young adolescents, as a group, tend to like opportunities to make their own choices. They also like to be involved in activities that they find to be personally relevant. Additionally, young adolescents who have struggled with reading in elementary school generally do not view themselves as readers, nor do they voluntarily engage in reading outside of school. They are also unmotivated to read textbooks or novels that are assigned to them (Wigfield, 2004).

Additionally, middle school teachers are content specialists, often with little or no training in teaching reading. Many teachers do not feel that it is necessary to address reading in their content classes and choose to leave that to the reading specialists or other individuals hired to provide remediation for struggling readers. Content teachers also feel pressure to cover a large amount of materials and are reluctant to add reading instruction into their daily classroom activities (Meltzer, Smith, & Clark, 2001).

The three major influences that govern reading instruction in middle schools create unique challenges for schools and teachers to improve the reading skills of students. Recent changes in policy and classroom instruction signal a renewed interest in adolescent literacy needs at the national and local levels. Publishers, curriculum specialists, and teachers have created different types of programs and approaches to meet the complex reading needs of middle school students.

RESPONSES TO KEY CHALLENGES

Literacy programs may vary with the needs of the school and its population. Generally, effective programs are student-centered, flexible, and responsive to students' needs (Strauss & Irvine, 2000). Some programs may directly address the needs of struggling readers, providing them with appropriate instruction by trained reading teachers. In addition, instructional methods are implemented across the curriculum. In these programs, the responsibility of teaching reading and writing skills is not the sole domain of language arts teachers. Rather, teachers and paraprofessionals practice reading strategies with their students as part of the regular reading material. Integrating a literacy component into a comprehensive school reform model may have the added benefit of restructuring efforts and staff support. For example, these models may incorporate schedules for reading classes and professional development for teachers.

Courses designed for all students

Some programs designed for all students in the classroom have identified common factors that are generally difficult for many middle school students. In addition, some programs can be administered to a whole class or an entire school that is performing low on reading tests.

Examples and research findings

Student Team Reading and Writing (STRW) is a cooperative learning program in which students work in groups that are heterogeneous with respect to students' ability levels. Within each group, students are assigned to partners with whom they work on part of the activities. Teams receive feedback based on average team performance. The effectiveness of this program was evaluated with a sample of sixth- to eighth-grade students in schools that served predominantly minority, high-poverty students (Stevens, 2003). These students were compared with students in three middle schools, who were matched on prior reading achievements and demographic characteristics and taught using traditional instructional methods. Findings from this study indicate a significant positive impact of the STRW program on vocabulary, reading comprehension, and language expression.

Accelerated Reader (AR) consists of three main components: additional time for reading, increased access to books, and diagnostic computerized tests. AR is often used for readers in schools with lower-than-average reading scores. Typically, AR is administered to an entire class and often can be applied to an entire school. This program does not address comprehension through instruction or instructional materials, but rather it seeks to build reading skills by encouraging increased and sustained reading. After completing specific reading tasks (e.g., finishing a book), students can take computerized tests and earn points, which can be exchanged later for prizes. Several evaluation studies have been conducted on AR, showing a positive impact on students' reading achievements (For a review, see Krashen 2002). Yet, little research has been done to determine the extent to which components considered unique to AR (e.g., computerized tests and a reward system) are responsible for the program's effectiveness (Krashen, 2003).

Courses designed for struggling readers

Courses listed under this category are primarily designed for students who read below grade level. These courses entail reading materials adapted to the needs of struggling readers, are often taught in classes that feature a smaller student–teacher ratio, require more active involvement on the part of students, and emphasize basic-level reading strategies.

Examples and research findings

Reading is FAME, designed for students in grades 7–12, is a more comprehensive type of remedial reading program. It can be offered as an elective course that students can participate in while completing their regular academic or vocational programs. Instruction focuses primarily on the alphabetic principle, fluency, vocabulary, and comprehension. The Reading is FAME developer conducted an evaluation study with a single group of students and concluded that the program has a positive and significant impact on students' scores on standardized reading tests. However, these results are difficult to interpret because no control group was used in the study (Curtis & Longo, 1997).

READ 180 is an intensive reading intervention program that emphasizes the use of technology. Educators select students into the program based on the schools' needs and population. However, the program's developers recommend that a school target students who score in the lowest 25th percentile on reading assessments. This program focuses on

phonemic awareness, phonics, fluency, vocabulary, text comprehension, spelling, and writing. An evaluation reported a positive impact of the program on eighth-grade students (Papalewis, 2004). Nearly 540 program participants were matched to 536 students based on their baseline reading performances. Findings from the study indicated that READ 180 participants made significant gains in reading and language arts, outperforming their counterparts in the control group.

The SRA Corrective Reading program can be offered in isolation or as a supplement to a language arts class and targets students who read 1 or more years below their current grade level. The program incorporates instruction in phonics, phonemic awareness, fluency, vocabulary, and text comprehension. A synthesis of the research on SRA Corrective Reading, conducted by the Florida Center for Reading Research (2004), indicated only preliminary support for the program's efficacy because of a lack of random assignment and no research on the comprehension components of the program. However, the program is currently being evaluated in a randomized field trial of reading programs as part of the Power4Kids initiative. (For more information on the Power4Kids initiative, go to http://www.haan4kids.org/power4kids.)

Instructional methods implemented across the curriculum

The goal of these programs is to prepare teachers to infuse research-based cognitive reading strategies into the daily delivery of their content. Instructional methods implemented across the curriculum focus mainly on active learning for students and teacher enhancement routines or teacher professional development centered on learning the strategies.

Examples and research findings

Project CRISS (Creating Independence through Student-owned Strategies) incorporates key principles of cognitive and social learning psychology. These principles stress background knowledge, students' active involvement in reading comprehension processes, writing as part of the reading process, and active organization of the information that is read. Project CRISS has been evaluated through three studies from 1993 to 1995. In a study conducted by the program developers, CRISS participants were better able to recall information from selected science and history reading material than students in the control group (Santa, 2004).

The Strategic Instruction Model is based on the assumption that most low-achieving students can learn to function independently in mainstream classrooms. In many cases, a special education teacher who helps the regular education teacher in the regular education classroom is responsible for teaching low-achieving students to be independent learners. Two main types of interventions are delivered under this model. Teacher-focused interventions train teachers to think about, adapt, and present subject matter information in learner-friendly ways. Student-focused interventions are designed to enhancing the skills and strategies that students need to learn the content. The developers have documented several case studies of successful implementation of the model (see http://www.ku-crl.org/archives).

Reading Apprenticeship is based on teachers who act as models for strategic reading processes. The teacher serves as a master reader of subject-area texts, and students serve as apprentices. This is practiced as part of teaching subject-area content, rather than as part of additional reading curriculum. A core principle is to make problem-solving processes visible to help students become independent, strategic readers. Greenleaf and colleagues (Greenleaf, Schoenbach, Cziko, & Mueller, 2001) examined case studies of academically underperforming students who participated in the program. Analyses of student survey and test score data suggested that program participants became more strategic, confident, and knowledgeable readers who, based on a standardized test of reading comprehension, gained on average 2 years of reading growth in 1 academic year.

Literacy programs within a comprehensive school reform model

Some CSR programs include literacy development as a key component. To address literacy concerns across a school, a CSR model may include a literacy course for struggling readers and/or a professional development course for teachers to guide them in using instructional strategies to foster literacy growth for all students.

Examples and research findings

Success for All Middle School (SFA-MS) integrates a reading component into its overall CSR model. Teachers assess and place students at appropriate reading levels. A common class period is assigned for reading practices, allowing students to progress at their own pace without upsetting the entire class. All teachers, including art, music, physical education, and other special-subject teachers, teach the reading class. Having all teachers teach reading encourages them to reinforce literacy skills as part of their subject-matter teachings. Students reading at a fourth-grade level or higher focus on developing comprehension skills, and students reading at or below a third-grade level focus on developing decoding skills, reading fluency, vocabulary, and comprehension. Cooperative learning techniques are integrated into the classroom instruction. An evaluation of SFA-MS is underway. Preliminary results indicate that SFA-MS schools tend to show gains on state high-stakes reading measures compared with matched schools who did not receive the model (Daniels, Madden, & Slavin, n.d.).

America's Choice is another CSR model with a strong literacy component for struggling readers. At the middle school level, a literacy coordinator is required to work individually with teachers to help them use instructional strategies recommended by the program. The model also provides tutoring and special double classes for struggling readers. The developers report findings from case studies and studies that compare America's Choice schools with state averages. They conclude that the model is effective in helping students meet academic goals in reading and math (National Center on Education and the Economy, 2003).

CONSIDERATIONS

Literacy programs should consider how they align with results of the National Reading Panel, which established research-based guiding principles for effective reading instruction (National Institute of Child Health and Human Development, 2000). The amount of research evidence available on programs varies widely. In general, research on middle school literacy programs is limited and usually conducted by the program developer. Schools should formulate an understanding of the specific components of a research-based comprehensive literacy program (see text box below), look at different instructional models for interventions, and choose one that fits their capacity and needs.

Elements Essential to Literacy Instruction in Middle Schools

- Providing individualized remediation for students with noteworthy reading difficulties.
- Teaching students a variety of strategies that foster comprehension (e.g., question generation, question–answer routines, comprehension monitoring, summarizing, and graphic organizers).
- Integrating reading instruction into content-specific classrooms (e.g., science and social studies).
- Using explicit instructional techniques, such as concept mapping and summarizing.
- Building vocabulary knowledge.
- Exposing students to a wide variety of texts and genres and provide choices, challenging tasks, and collaborative learning.

(Sources: Snow, 2002; Vacca & Vacca, in press)

More Resources on Literacy Instruction

- **Peterson, C. L., Caverly, D. C., Nicholson, S. A., O'Neal, S., & Cusenbary, S. (2000). *Building reading proficiency at the secondary level: A guide to resources.* Austin, TX: Southwest Educational Development Laboratory.**

  This guide documents resources available to educators who work with struggling readers. Part 1 provides background information on the scope of the problem, approaches to assessing struggling adolescent readers, theory and research on adolescent literacy, characteristics of effective programs, and principles of effective professional development for teachers who work with adolescents. Part 2 provides an overview of programs and strategies.

- **Snow, C. E., & Biancarosa, G. (2003). *Adolescent literacy and the achievement gap: What do we know and where do we go from here?* New York, NY: Carnegie Corporation.**

  This report outlines evidence pointing to the persistent achievement gap and the connection of this gap to preadolescent and adolescent literacy. It also includes brief reviews of current initiatives and programs, current efforts by public and private funding institutions to address the gap, and ideas for collaborative efforts and funding for the future.

- **ELA Leaders' Task Force. (n.d.). *A guidebook for adolescent reading* (2nd ed.). Denver, CO: Colorado Department of Education. Retrieved December 2, 2004, from http://www.into.ie/downloads/GuidebookforadolescentReading.pdf**

  This guide provides concrete advice on how to assess adolescent reading skills, describes best practices in the teaching of reading, and recommends types of professional development and resources that will help schools develop quality reading programs.

- **International Reading Association. (2002). *Supporting young adolescents' literacy learning: A joint position paper of the International Reading Association and National Middle School Association.* Newark, DE: Author. Retrieved December 2, 2004, from http://www.reading.org/resources/issues/positions_young_adolescents.html**

  This position paper includes recommendations for middle school educators and lists resources for professional development and classroom practices.

English Language Learners: Middle School

Research findings have consistently shown that English language learners score below their classmates on standardized tests in reading and math. Effective school-based practices should address a range of students' needs, including facilitating the transition from elementary school to middle school, providing specialized literacy instruction, and testing accommodations. In addition, encouraging parental involvement and peer support may also facilitate English language learners' performances in middle school.

INTRODUCTION

Across the nation, middle school classrooms are becoming increasingly diverse. Students whose first language is not English are the fastest growing school population. These students, currently referred to as English language learners (ELLs), may be foreign born themselves or have one or two foreign born parents who speak languages other than English in the home (DeVries, 1989). These students come from highly diverse backgrounds, and they face considerable challenges as they work toward English proficiency and strive to meet the academic demands of school. A special concern is given to the Hispanic population, who accounts for approximately 50 percent of the ELLs in the United States. Statistics also show that Hispanic students are most likely to drop out of high school than any other immigrant population (Kaufman, Kwon, Klein, & Chapman, 2000). Educators and policymakers are faced with the challenge of helping these students in a way that will improve their performances in middle school and increase their chances of graduating from high school.

KEY CHALLENGES

Middle school educators may face several challenges in meeting the educational needs of ELLs, including matching their needs with appropriate instructional programs, staff training, and valid assessments (Ruiz-de-Velasco, Fix, & Clewell, 2000). As they work toward English fluency, immigrant students enrolling in middle school may need to acquire basic skills, including literacy development, reading comprehension, and basic writing. To learn these skills, many ELLs need small classes and individualized instruction over expanded periods of the school day. ELL educators also need opportunities for cross-departmental collaboration. However, the departmentalized organization of middle school, the isolation of language development teachers, and the division of the day into 50-minute periods may impede ELLs' abilities to acquire these skills. In other words, because basic literacy skills are relevant to ELLs' academic performances in most subjects, these students face the double challenge of learning new skills in an environment that may not be appropriate for these educational tasks.

In addition, some middle schools have limited capacities to instruct ELLs, often because of a shortage of teachers who are specially trained to teach ELLs, especially content teachers (e.g., math, science, and social studies). In the typical social science class, for example, students must be able to construct arguments and discuss alternative solutions to social problems in English. In mathematics, students must work with English texts that contain vocabulary specific to math (e.g., integer, algebraic) and everyday words that have different meanings in math (e.g., table, irrational).

Finally, some middle school educators may struggle to accurately identify difficulties specific to ELLs. In some cases, educators erroneously confuse a lack of basic language communication proficiency with a student's ability to think, communicate, and perform academically (De Vries, 1989). Middle school instructors need to be able to assess native language skills, competencies, and needs of ELLs in order to effectively educate them. These educators also often struggle to provide adequate and valid testing of ELLs' academic skills, especially in math and science, in which reading skills are not the primary goal of assessment (Abedi & Lord, 2001).

Finally, ELL students may be particularly vulnerable to parental educational values and peer attitudes toward learning, because they may spend most of their time in segregated communities, either at school or in their neighborhood (Steinberg, Dornbusch, & Brown, 1992). Their academic self-esteem and desire to be accepted in their peer group may interfere with their academic progress.

In sum, middle school educators face a number of challenges in helping ELL students reach academic goals, including identifying students' needs, assessing their abilities, and constructing intervention programs in a way that is culturally sensitive and responsive to students' social and emotional needs.

RESPONSES TO KEY CHALLENGES

As noted above, ELLs' academic and social difficulties may originate differently. Therefore, programs to address their needs may also vary greatly in scope and design. Many programs for ELLs are designed to promote basic literacy skills, while other programs address a larger array of difficulties that ELLs might experience. The latter type may focus on parental skills, the support of feeder elementary school staff, and peer involvement as tutors and mentors. In addition, there is a growing awareness of the need to incorporate testing accommodations and professional development to ensure that instruction and assessment practices are more effective.

Programs to promote literacy skills

To be effective, a specialized curriculum for ELLs should focus on teaching students reading and literacy skills. These programs may vary from a structured reading curriculum that teaches basic reading skills, such as phonological concepts, vocabulary, and semantic processing, to programs that teach content and English language development simultaneously or encourage reading in an advanced level on topics that interest the students.

Examples and research findings

Specially Designed Academic Instruction in English (SDAIE) is an instructional process that offers educators a way to teach ELL students in a mainstream setting. One of SDAIE's major goals is to enable well-trained, mainstream teachers to adapt instructional practices to meet the needs of the diverse students in their class. This model encourages educators to connect the new material to students' previous learning and to use visuals, manipulatives, and technology to help students understand key concepts. A somewhat controversial component of the program is the integration of students' primary language into classroom instruction. Currently, there is a lack of research on the impact of SDAIE on student achievement.

The LANGUAGE! Curriculum teaches the structure and use of all language systems necessary for successful reading and writing to students with low literacy skills. The program is described in more detail in the "Literacy and Reading: Middle School" section. An evaluation study of the program was conducted using a sample of 555 students in the 6th, 7th, 8th, and 10th grades, 37 percent of which were ELLs (Moats, 2004). Students in all grade levels made significant gains in standardized tests of reading achievement. However, educators should interpret these findings with caution because a control group was not used in the study.

Collaboration with elementary school staff and families

Many middle schools conduct orientation sessions for potential incoming students during the spring semester of each year. To help ease a student's transition, staff from the middle school and the feeder elementary school can engage in meetings that specifically address the needs of particular incoming ELL students. Elementary school staff can familiarize the middle school staff with a student's language needs and proficiency in English and can share information about what instructional strategies have worked for the student in the past.

Examples and research findings

The Parent Institute for Quality Education (PIQE) offers parent education classes for immigrant parents. PIQE's instructors familiarize parents with the U.S. educational system by providing them with a forum to consider beliefs, practices, and ideas about education. A qualitative study conducted by Chrispeels and Rivero (2001) suggested that after attending eight PIQE classes, parents had expanded their concepts of involvement in their children's education at both home and school. These parents also felt that they needed to take a more active role in enhancing their children's literacy development. Another study evaluated the impact of the program on the children of participating parents (PIQE, 2004). The study compared the outcomes of 115 students from one middle school in Los Angeles, California, whose parents were randomly assigned to the program, with the outcomes of 105 students, whose parents were randomly assigned to the control group. Findings indicated that although the program did not produce short-term effects on students' achievements, it significantly reduced the students' absences from school.

Programs that encourage peer relationships and peer tutoring

Some middle school staff work to engage ELL students by maintaining the students' connections with the elementary school. For instance, many middle schools require students to fulfill a set number of community service hours. Middle school staff can encourage ELL students to volunteer as tutors of elementary school ELLs, with stipulations that the student tutors attend school regularly, maintain at least a C average, and improve their English skills progressively each quarter. The peer tutors would be familiar with the backgrounds of the incoming ELLs and would be trained by school staff in the transition process.

Examples and research findings

Coca-Cola's Valued Youth Program pairs middle school Latinos with elementary school Latinos, with the older students serving as tutors through high school. Although this program does not specifically target ELLs, a similar principle could be applied to a program designed to target them.

In 1988, the U.S. Congress enacted The Secondary School Basic Skills Demonstration Assistance Program, a 1-year demonstration program that assessed the effectiveness of peer mentoring and tutoring for disadvantaged students. As part of this program, researchers analyzed observations, surveys, and interview data to better understand the impact of peer tutoring and mentoring on the academic achievements of disadvantaged children (Powell, 1997). At the end of this project, the researchers concluded that ELLs, when paired with older students who served as tutors/mentors, may socialize more successfully in the mainstream school culture. Peer tutors helped them negotiate rules, schedules, and activities and fostered academic achievement.

Testing accommodations

State and district policies increasingly allow testing accommodations for ELLs to promote equity and fairness in assessment. Testing accommodations vary greatly and may range from extended time to oral reading and linguistic simplification of test items.

Examples and research findings

Two types of accommodations that involve translating difficult words that appear in the test items have shown promising results. One accommodation placed English glossaries and Spanish translations in the margins of the test booklet. The second accommodation placed an English dictionary at the end of the booklet. On an eighth-grade NAEP science test, ELLs who received such test accommodations performed substantially better than ELLs who were administered the standard test without the accommodations (Abedi, 2001).

Linguistic simplification of vocabulary and syntax on tests is another accommodation that may help ELLs demonstrate their knowledge and skills in content areas where reading skills are not the focus of assessment (e.g., science and math). In a study conducted by Abedi and Lord (2001), 1,174 eighth-grade students from 11 schools in the greater Los Angeles area were administered an abbreviated version of a NAEP math test. Findings suggest that ELLs have higher scores on math tests that contain linguistically simplified test items. The findings also indicate that ELLs benefit from this accommodation more than non-ELLs, suggesting that linguistic simplification meets needs that are unique to ELLs.

Professional development

The preparation of teachers who work with ELLs may focus on processes of second language acquisition; attitudes about language, culture, and race; and understanding how linguistic and cultural backgrounds may influence learning processes. To meet accountability standards for students and their teachers, teacher preparation for instructing ELLs has become a target for national reform efforts as a means to ensure the ability of teachers (Menken, Antunez, Dilworth, & Yasin, 2001).

Examples and research findings

A qualitative study of the standards implementation project in Lowell, Massachusetts, assessed the implications of developing district curriculum and implementing learning standards that purposefully includes ELLs (Clair, Adger, Short, & Millen, 1998). The study involved documenting professional development sessions and school visits and interviewing teachers and administrators. The professional development sessions included seventh- and eighth-grade English language arts teachers, English as a second language (ESL) and bilingual teachers, and school-based resource teachers (e.g., Title I) from four middle schools. Sessions included modeling instructional strategies appropriate for middle school, discussing frameworks of English language arts, and exploring ways that familiar classroom practices could be aligned with the frameworks. Based on their observations, the researchers concluded that teachers need sufficient time and long-term professional development to understand standards and their implications for teaching ELLs and to explore new ideas that connect with practice. In addition, they noted that building relationships among English language arts, ESL, and bilingual teachers is important to support students' learning. In addition to common planning time, it is essential that teachers build trusting professional relationships, in which they seek each other's advice and enrich each other with respect to standards implementation and understanding students' needs.

More About Standards for Teaching ELLs

The following organizations have developed standards that have been used as a foundation for state licensure, teacher preparation, and professional development programs:

- National Association of Bilingual Education (http://www.nabe.org).
- National Board for Professional Teaching Standards (http://www.nbpts.org).
- Center for Research on Education, Diversity & Excellence (http://crede.org).
- Teachers of English to Speakers of Other Languages (http://www.tesol.org/s_tesol/index.asp).

(Source: Menken, Antunez, Dilworth, & Yasin, 2001)

CONSIDERATIONS

The nature and culture of education, schooling, and teacher training must adjust to the meet the needs of a growing number of ELL students. Moreover, the *No Child Left Behind Act* requires that schools and districts be held accountable for the academic performance of ELLs in grades 3–8. Thus, there is an urgent need to develop, implement, and evaluate the effectiveness of intervention programs directed at ELL students. A variety of approaches—including literacy education, parental involvement, and peer tutoring—have demonstrated a positive impact on students. However, this impact needs to be further evaluated in research studies.

Looking for More Information About ELLs?

- **National Association for Bilingual Education (http://www.nabe.org)**

  NABE is a nonprofit organization dedicated to promoting educational excellence and equity for ELLs. Its Web site targets teachers, administrators, college instructors and students, researchers, parents, policymakers, and other advocates of language-minority children.

- **Strickland, D. S., & Alvermann, D.E. (Eds.). *Bridging the literacy achievement gap: Grades 4–12.* New York, NY: Teachers College Press.**

  This book addresses the issue of the achievement gap primarily for African-American students, ELLs, and students from low-income homes. It describes issues and challenges and presents examples of programs and strategies that have been successful in closing this gap.

- **Coltrane, B. (2002). *English language learners and high-stakes tests: An overview of the issues.* Washington, DC: Center for Applied Linguistics. Retrieved December 2, 2004, from http://www.cal.org/resources/digest/0207coltrane.html**

  This report summarizes issues concerning high-stakes testing of ELLs, including problems involved in and examples to effective accommodations.

Violence and Bullying: Middle School

School violence has become one of the greatest concerns of parents, educators, and policymakers in the United States. There are no silver bullets to address school violence, but there are several key elements that may help educators make effective decisions. It is generally recommended that educators conduct a preliminary assessment to estimate the magnitude of aggression problems in their schools and recognize the different reasons that may exist for aggressive behavior. After identifying the school's needs, educators may combine programs that target disruptive students with whole-classroom and whole-school practices, as well as help from the community.

INTRODUCTION

To fulfill their academic potential, young students need to achieve social and emotional maturity that supports positive school adjustment, and they need to learn in safe schools. There are no silver bullets to address school violence, but there are several key elements that may help middle school educators make effective decisions when selecting intervention and prevention programs for their schools: being aware of the magnitude of aggressive incidents that involve the school population, understanding the different causes of aggression, and knowing the variety of approaches designed to reduce violence at school.

KEY CHALLENGES

Disruptive behavior

Disruptive behavior might affect all the students in the classroom, leading to academic difficulties for both the individual student and his or her classmates (Wentzel, 1993). Approximately 50 percent of all classroom time is taken up by activities other than instruction, and discipline problems are responsible for a large portion of this lost instructional time (Cotton, 1989). Statistics show that more than 20 percent of the public middle schools in the United States report daily or weekly incidents of students' verbal abuse of teachers, and approximately 30 percent of the schools report incidents of students' acts of disrespect for teachers (DeVoe et al., 2003). African-American students are more likely than members of any other ethnic group to receive office referrals, and males are more likely than females (Skiba, Peterson, & Williams, 1997).

Bullying

Bullying occurs when bigger or stronger individuals or groups victimize smaller and/or weaker individuals. Bullying can take the form of physical or psychological attack, sexual harassment, or ostracism. Aggressive events at school are regarded as bullying incidents only if one of the students involved perceives the aggressor or aggressors as more physically, psychologically, or socially powerful (Smith & Brain, 2000). Student bullying peaks in the middle school years and is experienced on a daily or weekly basis in almost 50 percent of the public middle schools in the United States (DeVoe et al., 2003). Almost 33 percent of U.S. students in grades 6–10 are involved in moderate to frequent bullying, either as perpetrators, victims, or both (Nansel et al., 2001). Contrary to popular belief, females are just as likely as boys to "put someone down," spread a rumor, or "pick" on someone (Farrell, Kung, White, & Valois, 2000). Although not all middle school students experience bullying, their behaviors can still be affected by the fear of being victimized. Such behaviors may include always staying in a group, deliberately avoiding certain places in the school, and skipping school altogether (Chandler, Nolin, & Davies, 1995). Students who are bullied may suffer academically, become depressed, lose friends, or avoid seeking friendships and peer interaction (Juvonen, Nishina, & Graham, 2000).

Why Do Adolescents Engage in Problem Behavior?

Adolescents may engage in problem behavior because they:

- Believe that aggression is an appropriate and effective way to reach personal goals.
- Model themselves after aggressive peers or family members.
- Inaccurately interpret the intentions of peers.
- Lack emotion control, a repertoire of peaceful conflict responses, or communication skills.

(Sources: Bandura, 2002; Hartup, 1996; Dodge, 1991)

RESPONSES TO KEY CHALLENGES

Many programs addressing middle school violence focus on students' skills and attitudes toward aggressive behavior. A major focus of these programs is to teach students social and emotional skills to help them avoid the escalation of conflict situations into violent incidents. In addition, these programs often present information about risks of engaging in disruptive or aggressive behavior and challenge attitudes that support the use of violence. Some programs may also target instilling changes in the school and home environment and encourage the support of families and community

members. These programs recognize the potential role of social and contextual characteristics, such as the school organizational structure and parental involvement, in promoting moral values and prosocial behavior. Descriptions and examples of these approaches are presented below.

Skill-building programs

Skill-building programs are based on the assumption that some students need more extensive and explicit social skills training than others. These programs generally target two main groups: aggressive students and victims of bullying. Structured curricula are employed with targeted groups of students to help them gain the skills required to become a part of a peaceful school environment. In some cases, these curricula supplement social skills curricula delivered to the entire classroom. The interventions are delivered by a trained teacher, psychologist, or educational consultant and conducted in small groups or by pairing students with socially competent peers.

One aim of skill-building programs is to reduce students' disruptive and off-task behavior by providing appropriate tools that enable them to set goals, act responsibly, and control emotional reactions in the classroom. Another aim is to prevent bullying and peer harassment. By increasing aggressive students' sense of self-worth, respect for others, and capacity for anger management in unprovoked situations, these programs can diminish aggressive students' needs to make others feel inferior. Skill-building programs also strive to change students' attitudes toward aggression by teaching them about the consequences of aggression and emphasizing empathy and cooperation. Programs that target victims of bullying strive to help the victims cope with the emotional distress caused by bullying and to equip them with verbal and nonverbal effective behaviors to handle teasing and bullying and reduce the likelihood of continued bullying (Dykeman, 1995; Fox & Boulton, 2003; Osher, Dwyer, & Jackson, 2004; Selman, Watts, & Schultz, 1997).

Opponents of the skill-building approach argue that such programs may cause more harm than good, particularly if over-labeling and stigmatizing of students occurs and if the implementation process interferes with the aims of the program. For example, regular contact with aggressive peers within the peer-group intervention might reinforce further involvement in aggressive and disruptive behavior (Dishion, McCord, & Poulin, 1999).

Examples and research findings

A meta-analysis showed that skill-building programs have a stronger impact on aggressive students than on students who are less often involved in fights (Wilson, Lipsey, & Derzon, 2003). The same analysis also showed that one-on-one attention is more effective than intervention approaches geared toward groups, whether in or outside of class.

The Aban Aya Youth Project has evaluated the efficacy of social development and school community programs. Approximately 571 African-American male students enrolled in grades 5–8 were randomly assigned to intervention and control groups. Results of the study showed that the intervention significantly reduced levels of aggression, intention to engage in violent behavior in the near future, perceptions of aggressiveness from peers, and general attitudes favoring violence (Ngwe, Liu, Flay, & Segawa, & Aya, 2004).

Classroom-based programs

Classroom-based programs focus on classroom climate as a basis for behavior modification. These programs may be implemented in targeted classrooms or on a schoolwide basis (e.g., all classrooms from the same grade level in one school). These programs often incorporate social-emotional learning with clear classroom behavior rules, offer rewards for good behavior, and emphasize warm and supportive relationships among teachers and students.

Examples and research findings

The Peacemakers Program is a 17-lesson curriculum that attempts to change violence-related attitudes and values and to teach anger-management and problem-solving techniques. The program was evaluated in three middle schools and three elementary schools in a low-income area. Student outcomes in these schools were compared with student outcomes in one middle school and one elementary school. Findings indicated an increase in psycho-social knowledge and a decrease in violent incidents among program participants (Shapiro, Burgoon, Welker, & Clough, 2002).

Responding in Positive and Peaceful Ways is a curriculum designed to promote effective social cognition and emotion processes in social conflict situations. In sessions administered by trained prevention specialists, students learn how to choose strategies most likely to be successful for violence prevention. An evaluation of the program was conducted in seventh-grade classrooms at two urban schools, serving primarily African-Americans, where the program had been implemented during the previous school year. The researchers randomly assigned 10 classrooms to the intervention group and 11 classrooms to the control group. No statistically significant differences were found between the study groups. However, the researchers indicated that students with higher aggressive tendencies benefited more from the program (Farrell, Meyer, Sullivan, & Kung, 2003).

The Bully Busters program is a professional development program designed to facilitate teachers' skills, techniques, and self-efficacy for confronting episodes of bullying and victimization in the classroom. Teachers learn to manage relevant activities in the classroom and share advice and support with fellow teachers. In an evaluation study, 15 teachers participated in weekly and bimonthly Bully Busters

support team and supervisory meetings. They were compared with 15 teachers who received no treatment or supervision. Teachers in the intervention group showed a significant increase in beliefs in their abilities to influence students, and the level of bullying behaviors reduced significantly in their classrooms (Newman-Carlson & Horne, 2004).

Other issues and activities, although maybe not as salient or pressing as bullying and violence, also have the ability to disrupt normal classroom activities. These activities include excessive talking and other examples of indiscipline or unruly behavior. Consistency Management and Cooperative Discipline (CMCD) seeks to address these issues. The program has two main components:

- Consistency Management focuses on classroom and instructional organization. The teacher organizes all classroom activities (e.g., seating arrangement, passing out papers, taking attendance, and providing students with opportunities to participate in class) to create an orderly and supportive environment in which all students can participate.
- Cooperative Discipline focuses on training students to share classroom management roles. Students can apply for roles or jobs (e.g., passing out papers, resolving disputes, and assisting substitute teachers) that are posted in the classroom.

The American Federation of Teachers (2000) published a summary of research on CMCD, noting that the research consistently shows a positive change in school climate and a reduction in disciplinary referrals. The evaluators of Project GRAD (discussed in "Transition From Elementary to Middle School") have noted that CMCD can be implemented as part of a school reform. Preliminary findings from the evaluation showed that a high amount of teachers participated in CMCD, that teachers were satisfied with the technical assistance of the CMCD team, and that ongoing training and school visits increased staff's understanding and implementation of the program (Ham, Doolittle, Holton, Ventura, & Jackson, 2000).

Examples of Components of Classroom-Based Programs

- Communicate warmth and interpersonal sensitivity.
- Facilitate transitions in and out of content-area classrooms and from one activity to another.
- Establish learning communities in the classroom.
- Define and communicate classroom rules and teachers' expectations of students' social and emotional behaviors in the classroom.
- Teach social problem-solving skills to the entire classroom.
- Use token economy, in which points or tokens are awarded for discontinuing problem behaviors that are targeted in the classroom.

(Sources: Gibson & Govendo, 1999; Kehle, Bray, Theodore, Jenson, & Clark, 2000)

Whole-school policy programs

A common criticism of skill-building programs is their limited efficacy in the absence of instilling positive changes in the school and home environments (Greenberg, Domitrovich, & Bumbarger, 2001; Greenberg et al., 2003). Educators might increase the effectiveness of their skill-building program by using a whole-school policy.

In addition to violence prevention, whole-school programs may establish social support systems for victims of peer aggression. These programs are aimed at reducing the negative impact of bullying incidents on victims, who can get depressed or develop aggressive tendencies as a result of being bullied. This strategy emphasizes the roles of peer- and adult mentors in providing emotional support to victims of and active involvement against bullying.

Examples and research findings

Effective Behavior Support is a schoolwide intervention that may be implemented as a part of a community-based program. The aim of this program is to increase appropriate social behavior in all school settings by defining clear rules, teaching expected behaviors, and providing praise and consistent rewards for appropriate behaviors. An evaluation of the program in three schools in Oregon revealed a significant decline in discipline referrals compared with baseline data and a control group. Yet, this effect was significant only for seventh-grade students. Researchers also found an increase in students' reports of school safety among sixth and seventh graders but not among eighth graders (Metzler, Biglan, Rusby, & Sprague, 2001).

Project PATHE (Positive Action Through Holistic Education) seeks to improve organization by reducing the number of delinquent acts and school disorders by altering three key student attitudes and experiences: decreasing academic failure experiences, increasing social bonding to school, and improving students' self-concepts. In a 2-year evaluation of the program, seven intervention schools were compared with two control schools, serving a large number of disadvantaged students. The researcher found that participation in the program had a positive impact on attendance and grades and resulted in a significant decrease

in suspensions. There was also a small but consistent decrease in self-reported delinquency and problem behavior (Gottfredson, 1986). Similar findings were also found in a study by Gottfredson, Gottfredson, & Hybl (1993).

A different model of whole-school programs encourages students to resolve their own conflicts by using peers as resources for conflict resolution and social support, thereby reducing the amount of time that teachers invest in managing disruptive behaviors. This approach is commonly practiced in Conflict-Resolution Peer-Mediation (CR–PM) programs. These programs have two components: cognitive and practical. The cognitive component teaches basic skills, such as understanding the nature of conflicts and conflict resolution strategies, anger control, and effective communication. The practical component includes training a selected number of students to be peer mediators and encouraging other students to turn to these mediators to resolve conflicts. The mediation process consists of a sequence of predefined steps, which can be applied to various conflict situations. In one evaluation of a CR–PM program, 116 students in grades 6–9 received training in conflict resolution and peer mediation, and 60 students in the same grades did not. For students who received the training, findings indicated a significant increase in their abilities to use negotiation and suggest alternative solutions to conflicts (Johnson, Johnson, Dudley, Mitchell, & Fredrickson, 1997).

School-community collaboration

The reasoning behind school–community collaboration is that school violence is a highly contextual and dynamic process. Adolescents' selection of peers, allies, and conflicts mirror the organizational and cultural settings of both their schools and neighborhoods. Community-based intervention programs supplement school-based programs and are usually implemented in high-risk, often low-income neighborhoods. Educators, social service providers, town officials, business leaders, and others interested in prevention efforts work together to develop a prevention plan (Elias, Zins, Graczyk, & Weissberg, 2003; Mateu-Gelabert & Lune, 2003; Randall, Swenson, & Henggeler, 1999). A U.S. Surgeon General's report (2001) indicated that effective violence prevention programs include components that enhance adults' social support, parental supervision, living in a strong community, and school commitment.

"Most highly effective programs combine components that address both individual risks and environmental conditions, particularly building individual skills and competencies, parent effectiveness training, improving the social climate of the school, and changes in type and level of involvement in peer groups."

(Source: U.S. Department of Health and Human Services, 2001)

More Components of a Whole-School Policy Against Middle School Violence

- Increase awareness of the issue among teachers, students, and parents.
- Introduce well-defined and consistent behavioral management policies with full staff involvement in schoolwide safety procedures.
- Emphasize a positive school climate, making students, parents, and staff feel safe and welcome.
- Provide immediate reinforcement for positive behavior and sanctions for bullying.
- Create a "bully box" for reporting bullying incidents.
- Notify the bully's parents about the details of the incident(s).
- Form a bullying prevention coordinating committee.
- Increase supervision in areas that are hot spots for bullying and violence at the school.
- Introduce peer mediation.
- Establish full service schools that help to prevent youth violence by providing safe places for students to meet and participate in meaningful activities during times when they would otherwise be at high risk for becoming involved in crime or violence.

(Sources: California Department of Education, 2003; Dryfoos, 1994; Osher, Dwyer, & Jackson, 2004; Marcy Lesrin-Epstein, 2004; Woods & Wolke, 2003)

Examples and research findings

Big Brothers/Big Sisters (BB/BS) is a community-based mentoring program shown to have a promising impact on adolescents' behaviors and skills. Youth living in single-parent, typically poor households are eligible to be matched with adult mentor volunteers. Long-term relationships based on regular contact with a mentor provide youth with the support and guidance that allows them to grow into responsible adults. BB/BS was evaluated with a sample of students ages 10–16 (Tierney, Grossman, & Resch, 1995). The study showed a significant reduction in the number of fighting incidents involving program participants.

The Bully Prevention Program, originally designed and evaluated by Olweus (1993) in Norway, is a comprehensive prevention model that represents a whole-school approach to reduce bullying behavior. The program attempts to restructure the social environment of the school, such that warmth, positive interest, and involvement by adults characterize the school environment. The program also provides social skills counseling for victims, encourages family involvement, and includes a community partnership component (e.g., organizing a neighborhood bully watch and involving youth recreational facilities and religious education leaders). A large-scale implementation and evaluation of the Bully Prevention Program was conducted among 6,388 elementary and middle school students in nonmetropolitan areas in the United States. Findings revealed a reduction in bullying incidents; a reduction in other forms of antisocial behaviors, such as delinquency, vandalism, and school misbehavior; and an increase in order, discipline, positive social relationships, and positive attitudes toward school (Melton et al., 1998).

CONSIDERATIONS

Educators can approach school violence in three steps:

1. Determine the aggression problems in the school. This is not an easy task, especially because certain forms of aggression, like peer bullying, tend to be underreported.
2. Assess the needs of aggressive students and victims of aggression. To effectively select a program, match an intervention program with the specific reasons or needs that drive students to violent or disruptive behavior. Preliminary assessments of students' attitudes, difficulties, and abilities may be used to identify the necessary areas of change. Existing approaches for reducing school violence vary in intensity, number of agents involved (e.g., teachers, school administrators, parents, community), and targeted students. Generally, research findings suggest that approaches involving a school- or communitywide change are favored over pull-out programs that target certain individuals, but research has not yet determined the relative appropriateness of such approaches for different types of student populations.
3. Collect data and feedback from students, parents, and school staff. Gathering such data and feedback will help improve future implementation of the intervention program.

More Resources On Bullying and Violence

- **Dwyer, K., Osher, D., & Warger, C. (1998). Early warning, timely response: A guide to safe schools. Washington, DC: U.S. Department of Education. Retrieved December 3, 2004, from http://www.ed.gov/about/offices/list/osers/osep/gtss.html**

  This guide details early signs that relate to problem behavior and describes implementing a community- and schoolwide effort for enhancing school safety.

- **Bates, M., Furlong, M., & Pavelski, R. *Guidelines for developing an evaluation plan.* Santa Barbara, CA: University of California. Retrieved December 3, 2004, from http://www.education.ucsb.edu/schpsych/School-Violence/PDF/Evalguide.pdf**

  This guide includes a collection of questions and worksheets to assist educators in evaluating the effectiveness of aggression prevention programs.

- **Minogue, N., Kingery, P., & Murphy, L. (1999). *Approaches to assessing violence among youth.* Rosslyn, VA: The Hamilton Fish National Institute on School and Community Violence. Retrieved December 3, 2004, from http://www.hamfish.org/pub/vio_app.pdf**

  This compendium details rating scales and instruments that have been used to assess rates and tendencies of aggressive behavior.

Alcohol, Tobacco, and Other Drugs: Middle School

Researchers agree that the middle school years are the period of time when students are most likely to try smoking, drinking alcohol, or using other drugs for the first time. Educators should be aware of potential warning signs, such as sudden deterioration in academic achievement; drastic changes in behavior, habits, and social networks; and specific physical changes. While there is a lack of research supporting the effectiveness of zero-tolerance policies on preventing drug use, several rigorous research studies support the positive impact of social influence and life-skills programs. In addition, many experts believe that approaches including family and community involvement are especially promising.

INTRODUCTION

During the past two decades the appropriation of Federal grants for alcohol and other drug programs has substantially increased, demonstrating an increased national awareness and commitment to address the problem of drug use among U.S. youth (Brown, 1995; Office of National Drug Control Policy, 2004). Yet, schools still struggle to finance and support school-based antidrug programs (Trump & Moore, 2000), and the decline in middle school drug users that was observed a decade ago has come to a halt in recent years (Johnston, O'Malley, Bachman, & Schulenberg, 2004). As a result, there is still a need to understand what affects trends in young adolescents' drug use, and how to effectively prevent adolescents from using alcohol, tobacco, and other drugs.

KEY CHALLENGES

The middle school years are the period of time when people are most likely to try smoking, drinking alcohol, and using other drugs for the first time (Johnston et al., 2004; National Council on Alcoholism and Drug Dependence New Jersey, 2003; U.S. Department of Health and Human Services, 1998). Approximately 74 percent of eighth-grade students report that marijuana would be fairly easy for them to get if they wanted it; 83 percent report the same for alcohol; and approximately 30 percent report the same for both crack and cocaine (Johnston et al., 2004). Statistics also indicate that in many cases, students find drugs available inside their schools. Approximately 30 percent of middle school students report that drugs are used, kept, or sold at their schools (The National Center on Addiction and Substance Abuse at Columbia University, 2001).

When examining the prevalence of the problem, it is important to distinguish between one time experimentation with drugs and regular or excessive use (often referred to as drug abuse). Psychological problems are more likely to be associated with adolescents who are frequent users of tobacco, alcohol, or other drugs than with nonregular users. Certain drugs are more addictive than others and therefore, are more highly linked to drug abuse. For instance, about 1 percent of eighth graders in the United States report using cocaine and another 1 percent report recently using crack (Johnston et al., 2004).

Researchers believe that the brain is still growing during adolescence. Therefore, introducing chemical changes in the brain through binge alcohol drinking and the use of illegal drugs can have far more serious effects on adolescents than on adults (Office of National Drug Control Policy, 2002). Short-term effects of soft drugs, like marijuana, include loss

Reasons for Drug Use

- Social modeling: Students, whose parents, siblings, or peers smoke or use drugs, are more likely to try smoking cigarettes or other drugs.
- Perception of acceptability: Students who think that smoking and alcohol use are common in their environment may think that this behavior is acceptable.
- Media influence: Commercial advertisements attempt to foster the belief that smoking and alcohol consumption is linked with positive social images and glamorous adult behavior.
- Availability of drugs: The more available tobacco, alcohol, and drugs, the more likely students are to use them.
- Perception of risk: Students are more likely to smoke, drink, or use drugs when they believe that the harm associated with such use is low.
- Sensation seeking: High sensation seekers are more likely to begin using marijuana at an earlier age and to continue using marijuana in high school than are low sensation seekers.
- Psychological problems: Some students are more likely than others to experiment with alcohol and drugs. These students may suffer from low self-esteem, anxiety problems, and a lack of coping skills.
- Stressful events: Stressful events, such as school transition, different stages of acculturation, and problems at home, may make students more vulnerable to experiment with alcohol, tobacco, and other drugs.

(Sources: Crawford, Pentz, Chou, Li, & Dwyer, 2003; De La Rosa & Recio Adrados, 1993; Johnston et al., 2004; Mandell, Hill, Carter, & Brandon, 2002).

of motor coordination, distorted perception, trouble with thinking and problemsolving, and increased anxiety (Partnership for a Drug-Free America, 2003). Long-term effects include problems with memory and learning and difficulties with thinking and problemsolving (Hollister, 1998).

Drug abuse in middle school may explain involvement in other types of problem behavior, which in turn may cause deterioration in academic achievement (Mandell, Hill, Carter, & Brandon, 2002). For example, students who drink alcohol in grade 7 are also likely to exhibit other forms of problem behavior, such as using other substances, stealing, and skipping school (Ellickson, Tucker, & Klein, 2003).

RESPONSES TO KEY CHALLENGES

Many prevention programs focus on students' social and emotional skills and attitudes toward using drugs and alcohol. This approach is practiced in informational, social influence, and life-skills programs. In addition to these programs, schools may choose to implement zero-tolerance policies that mandate predetermined consequences for substance possession or use. A different type of whole-school program, which has gained support by researchers and policymakers, includes programs that promote supportive family, school, and community connections and a supportive environment for early adolescence. These different approaches are described below.

Informational programs

Informational programs aim to teach students about the negative consequences of drug use and abuse and consequently, to strengthen students' negative attitudes toward alcohol, tobacco, and other drugs. Educators may deliver this information in a whole-classroom context, small support groups, or individual counseling sessions.

Examples and research findings

Computer-assisted instruction programs may facilitate learning about healthy habits and effective decisionmaking. Trained teachers and counselors may introduce the program to students during school, and students can practice at school or at home using the Internet (Geiger et al., 2002). As part of classroom discussions, teachers may also use videos to discuss the dangers of drug use.

Research has shown that the content of an informational program is directly related to its level of success. Entertaining videos are generally more effective in promoting negative attitudes toward drugs than videos of a more didactic nature (Eiser, Eiser, & Pritchard, 1988). Providing information about the prevalence and acceptability of consuming alcohol and smoking cigarettes is a greater deterrent than offering information about the consequences of using drugs (Donaldson, Thomas, Graham, Au, & Hansen, 2000).

Social influence and life-skills programs

Researchers and educators agree that resisting peer pressure and other social influences is a key to successful prevention. Social influence and life skills programs attempt to equip students with skills and resources that help them to resist negative influences (U.S. Department of Health and Human Services, 2000). These training programs can be used as part of a whole-school program or in conjunction with mentoring and counseling.

Examples and research findings

The Positive Youth Development Program is a highly structured, 20-lesson curriculum designed to promote six different competencies: stress management, self-esteem, problemsolving, substance and health knowledge, assertiveness, and social networking. An evaluation study was conducted with sixth- and seventh-grade students in urban and suburban middle schools (Caplan et al., 1992). The intervention group included 109 participants. They received regular academic instruction in science that included a series of lessons on the negative effects of drug use. The control group was composed of 173 students. The students who received the training remained relatively stable in their intentions to drink beer and hard liquor, but students in the control group became more inclined to use alcohol. Regarding actual alcohol use, the program showed mixed results, reducing only reported excessive alcohol use.

Project D.A.R.E. (Drug Abuse Resistance Education) is the most well-known prevention program in the nation. Trained police officers provide information about alcohol and drugs and give students ideas on how to resist peer pressure and find alternatives to drug use. After two decades of program implementation did not produce significant positive results (Thombs, 2000), the program was revised, resulting in D.A.R.E. + PLUS (Play and Learning Under Supervision). This new version has shown evidence of greater effectiveness. New components of the revised program include parental and community involvement and after-school activities. An evaluation study of D.A.R.E. + PLUS was conducted with 24 middle/junior high schools and respective police departments in their districts in Minnesota. The schools participating in the original Project D.A.R.E. did not show significantly different results than schools that did not receive the intervention. However, schools participating in the D.A.R.E. + PLUS program have shown significantly greater effects in preventing tobacco, alcohol, and multidrug use (Perry et al., 2003).

Like D.A.R.E. + PLUS, a family involvement component is also included in the Families That Care—Guiding Good Choices program and the Iowa Strengthening Families Program (ISFP). Both prevention programs incorporate student training with parent training to enhance students' social and drug resistance skills. However, Guiding Good Choices (formerly known as Preparing for the Drug Free

Years) focuses on students' prosocial behaviors and conformity to family rules, and ISFP focuses on parent-child bonding and students' coping skills. Both programs are short in duration, consisting of five and seven weekly sessions respectively. In an evaluation of the programs' effectiveness, 667 sixth-grade students from 33 schools were randomly assigned to Guiding Good Choices and ISFP intervention groups and to a nonintervention control group. These students were tested again when they were in the 7th, 8th, and 10th grades. Results indicated a positive long-term impact of both programs on delayed initiation, current use, and composite use of alcohol, cigarettes, and marijuana; the impact was stronger for participants of ISFP than for participants of Guiding Good Choices (Spoth, Redmond, & Shin, 2001).

Project ALERT seeks to motivate middle school students against using drugs and to provide them with the skills necessary to translate this motivation into effective drug resistance behavior (Ellickson & Bell, 1990). This program has been revised to target more heavy drug users and to include parental involvement. An evaluation of the revised Project ALERT was conducted with 4,276 seventh-grade students at 55 middle schools in South Dakota (Ellickson, McCaffrey, Ghosh-Dastidar, & Longshore, 2003). Schools were randomly assigned to intervention and control groups. Students were evaluated before the start of the program and 18 months later. Findings revealed that revised Project ALERT significantly reduced the number of new cigarette and marijuana users and incidents of alcohol abuse. With respect to students who were already frequent users or who had a history of drug abuse, the program was successful in affecting cigarette smokers but it did not have a significant impact on alcohol users.

Zero-tolerance policies

To reduce incidents of tobacco, alcohol, and other drug use, educators and administrators strive to provide firm, fair, and consistent discipline applied with good common sense. Zero-tolerance polices mandate predetermined consequences or punishments for substance possession or use, including suspension, expulsion, or referral to an alternative school. Research (Small et al., 2001) has suggested that in order for school policies to be effective, school principals need to pay close attention to two major issues. First, school principals and program implementers need to coordinate antidrug policies with all other school policies to reduce redundancy and conflicting messages to students. Second, school principals need to identify and implement remedial services to students who are caught using tobacco, alcohol, and illegal drugs. This will help students overcome addiction problems and/or psychological problems, which may prevent the problem from reoccurring, and help promote school adjustment.

Examples and research findings

To date, little research supports a relationship between zero-tolerance policies and a reduction in students' problem behaviors. Moreover, for at-risk students, the most consistently documented outcome of suspension and expulsion appears to be further suspension and expulsion and perhaps, school dropout (Skiba & Peterson, 1999).

Warning Signs of Drug Use

- Unexplained deterioration in school or work performance.
- Change in attitude about school.
- Problems with or changes in social relationships and recreational activities, such as giving up activities that were once pleasurable.
- Increased secrecy about conversations, activities, and personal issues and space.
- New friends, new activities, and new clothing style.
- Increased expenditures.
- Evidence of drug-related paraphernalia, such as pipes, inhalants, eye drops to mask red eyes, and mouthwash and room deodorizers to mask scents of drug use.
- Missing prescription drugs.
- Signs of alcohol use may include odor of alcohol on breath, slurred speech, and staggering or stumbling walk.
- Signs of marijuana use may include red, bloodshot eyes; impaired motor skills; odor of marijuana on clothes; and a lethargic appearance.
- Signs of cocaine or methamphetamine use may include increased talkativeness, talking fast, sniffing, signs of having a cold, weight loss, anxiety and paranoia, moodiness, and irritability or frequent expressions of anger.

(Sources: American Academy of Pediatrics, n.d.; Bobby Benson Center, n.d.)

Programs that promote supportive family, school, and community connections

These programs stem from the belief that students who feel attached or connected to their family, school, or community use cigarettes, alcohol, and marijuana less frequently than students who do not feel as connected. Students' feelings of connectivity to school are related to the overall school environment, including positive student–staff

interactions and relationships among students and a sense of student empowerment. Mentoring programs can help students develop self-esteem and coping skills, and they promote positive decisionmaking in situations involving drug use. These programs may also provide counseling and support to teachers, parents, and family members (Taylor, LoSciuto, & Fox, 1999). The parental involvement components of these programs may include school staff support to enhance parent–child communication (Osher, Dwyer, & Jackson, 2004).

Examples and research findings

Community of Caring is a whole-school comprehensive program that integrates staff development, family and community involvement, and a caring, respectful, and trusting environment to promote students' values and prevent negative behaviors. An evaluation study was conducted of more than 1,700 students from diverse ethnic, cultural, and socioeconomic backgrounds (Center for Health Policy Studies, 1991). Findings indicated that program participants displayed greater abstinence from alcohol compared with their counterparts in the control group.

Project STAR (Students Taught Awareness and Resistance), also known as the Midwestern Prevention Project, is a social influence program. However, the scope of this program is wider than other social influence programs in that it addresses multiple individual and contextual (e.g., both school and the community environment) factors that may influence adolescent drug use and abuse (Rohrbach et al., 1994). In addition to a social influence curriculum, the classroom atmosphere is adapted to become more responsive to students' needs and to provide an emotionally safe environment in which students are encouraged to share feelings and experiences. Peer leaders may be involved in facilitating this environment. Mass media are used to promote the project. In addition, parents participate in parent education programs to work with their children on Project STAR homework. The parents also learn parenting and family communication skills and get involved in community action. This program was selected by the National Institute on Drug Abuse (NIDA) as an effective drug prevention program. Osher, Dwyer, & Jackson (2004) reviewed the research literature on this program and reported that Project STAR demonstrated a positive impact on reducing students' smoking and drug use.

All Stars is a character education and problem behavior prevention program designed to reduce drug use and other forms of problem behavior by focusing on the following mediating variables:

- Enhancing the perception that substance use interferes with personal goals, values, and lifestyles.
- Promoting beliefs that substance use is not an acceptable behavior.
- Encouraging personal commitment not to use substances.
- Fostering bonds with school.

Program specialists and regular classroom teachers implement the program in whole-classroom sessions, small-group sessions outside of class, and individual sessions. The program was evaluated in two large cities in a Midwestern state. Eight schools composed the intervention group, and six schools composed the control group. Findings generally suggested positive effects on students' behaviors. However, the program seemed most effective for white students when the deliverers were classroom teachers, and most effective for Hispanic students when the deliverers were program specialists. Effects of the program were the same for African-American students regardless of the type of deliverer (Harrington, Giles, Hoyle, Feeney, & Yungbluth, 2001).

CONSIDERATIONS

Most school-based substance abuse programs aim to prevent drug use rather than help students who already have established regular patterns of drug use. Individuals who have crossed the line into regular drug use—especially chronic, hardcore use—need assistance in overcoming their addictions. Because there are no separate funding streams to pay for special services for addicted students, it is not surprising that counseling for students already abusing substances is offered only in a small number of middle schools in the United States

"Only about 9.5 percent of the nation's public school districts employ formal student assistance programs for students dependent on an illegal drug or alcohol."

(Source: The National Center on Addiction and Substance Abuse at Columbia University, 2001b)

Each of the prevention approaches discussed above has been found to have varying degrees of success, depending on the specific content and components of the program. For example, the effectiveness of informational programs depends on the content of the messages and the format in which they are conveyed. Yet, researchers tend to agree that the most successful programs are those that are comprehensive, have multiple components, and are implemented in sufficient intensity and duration to achieve desired effects (Perry et al., 1996; Skiba, Monroe, & Wodarski, 2004; Tobler et al. 2000).

More Resources on School-Based Substance Abuse Program

- **U.S. Department of Education, Office of Special Educational Research and Improvement, Office of Reform Assistance and Dissemination. (2002).** ***Exemplary and promising: Safe, disciplined, and drug-free schools programs 2001.*** **Washington, DC: Author. Retrieved December 3, 2004, from http://www.ed.gov/admins/lead/safety/exemplary01/exemplary01.pdf**

  This publication provides descriptions and evidence for the efficacy of nine exemplary and 33 promising programs selected by an expert panel in 2001.

- **SAMHSA (Substance Abuse and Mental Health Services Administration) Model Programs (http://www.modelprograms.samhsa.gov)**

  This Web site includes descriptions of programs that have demonstrated sufficient efficacy evidence according to SAMHSA's National Registry of Effective Programs.

- **U.S. Department of Health and Human Services and SAMHSA's National Clearinghouse for Alcohol and Drug Information (http://www.health.org)**

  This Web site includes publications directed at teachers and students and contains facts, statistics, and multimedia tools on alcohol, tobacco, and drug use.

- **Quinn, M. M., Osher, D., Hoffman, C., & Hanley, T. B. (1998).** ***Safe, drug-free, and effective schools for all students: What works!*** **Washington, DC: American Institutes for Research. Retrieved December 3, 2004, from http://www.air.org/cecp/resources/safe&drug_free/main.htm**

  This report presents information on school sites where parents, teachers, administrators, and students worked together to make schools safe and create effective learning environments for all students.

Parental Involvement: Middle School

Researchers, educators, and policymakers agree that active encouragement of parental involvement is a key to the success of students. To facilitate parental involvement, a variety of programs are offered to enhance parenting skills, provide parents with strategies to aid their children's learning at home, and keep parents informed of schools' instructional policies and practices. Parental involvement may be implemented as a stand-alone program or as a component in comprehensive school-based programs.

INTRODUCTION

Parents play an important role in the emotional development and academic achievements of middle school students. Awareness of parental involvement may provide an understanding of the complexities of adolescence. As students transition from elementary school to middle school, developmental changes occur that may lead some students to feel less academically competent (Eccles & Midgely, 1989), view school as less important (Roeser, Eccles, & Sameroff, 1998), and have more emotional and behavioral problems. Students who have a positive self-image and positive middle school adjustment are more likely to invest time and energy into their school-related tasks and demonstrate improved achievement outcomes than their counterparts (Anuola, Stattin, & Nurmi, 2000). Parents' support in and outside of the school context can aid in improving outcomes in middle school adolescents. Two dimensions of parental involvement and behavior have been linked to student emotional well-being and achievement: emotional support and involvement in students' academic activities and school environment (Steinberg, Elman, & Mounts, 1989; Epstein 1995).

KEY CHALLENGES

Middle school is characterized by departmentalized instruction with multiple classes for each student. Unlike elementary school, teachers are less able to provide personal attention to students. In this context, parental support may be especially important to help students cope with the challenges of middle school (Eccles et al., 1993). Parents who exhibit high levels of emotional support and more democratic parenting styles tend to have better adjusted children who show improved school achievement (Baumrind, 1991; Steinberg, Elmen, & Mounts, 1989). In addition, parenting behavior that restricts adolescents' autonomy may lead to increased conflict among parents and their children (Children, Youth and Family Report, 1997). At the same time, parents need to monitor their children's activities and make sure that they acquire the necessary behavioral and academic skills to fulfill their academic potential and become productive citizens.

Parent–adolescent communication may be a challenge. Adolescents may purposely avoid discussion topics or may seem to be inattentive to parents' attempts to communicate (Mazur & Ebesu Hubbard, 2004). Parents may also feel uncertain about the extent to which they should be involved in schoolwork or about ways in which they can accomplish such involvement (Shumow & Lomax, 2002). In addition, parents may feel that they lack sufficient knowledge to be involved in their children's homework (Jaramillo, 1993), and that they do not know enough about school events and teachers' instructional practices. In sum, to be effectively involved, parents need structured programs that enhance their skills and beliefs in their abilities to be involved in school-related matters. Parents also need to be aware of a school's practices and policies and whether schools allow for close parent–staff communication, and they need to encourage further parental involvement. Parents who try to be involved without being aware of practices used in their children's school may not be able to provide the support that their children need (Mulhall, Mertens, & Flowers, 2001).

RESPONSES TO KEY CHALLENGES

The following section describes two major types of programs designed for parents to enhance their involvement in and support of their children's academic and emotional developments.

Parenting skills training

Parenting skills training aims to promote supportive home environments and equip parents with tools to manage stressful situations involving their children. These programs also can improve parenting practices to promote students' adjustments to school. Parenting skills programs typically target parents of students who are at risk of experiencing academic, emotional, or social difficulties.

Examples and research findings

The Adolescent Transitions Program (ATP) is a program designed to enhance key family management skills. In a typical group session, a trained consultant works with eight families during 12 group meetings. A parent consultant also joins these meetings to model appropriate parenting skills and support parents' abilities to cope with difficult circumstances. The 12 group sessions may be supplemented by individual meetings with each family. In addition to parent training, ATP includes training sessions for students that are designed to teach cognitive and behavioral skills. In an evaluation of the program, 158 families were randomly assigned to one of four intervention groups: parent training only, student training only, parent and student training, and self-directed change using videotaped curricula (Andrews & Dishion, 1995). In addition, 39 families, matched on risk

status, were assigned to a control group that did not receive an intervention. Findings indicated that students whose parents attended parent training had fewer aggressive behavior incidents in school and fewer conflicts and negative interactions with their parents than students in the control group.

Another study evaluated ATP using a sample of 303 families in eight small Oregon communities (Irvine, Biglan, Smolkowski, Metzler, & Ary, 1999). The families were randomly assigned to a program or waiting list. Findings indicated that the program had a positive impact on parents' problem-solving skills and their abilities to handle stressful situations involving their children. The program also improved parents' feelings toward their children and decreased depression levels. Finally, ATP improved children's adjustments to school and reduced antisocial and problem behavior.

Involving parents in schoolwork

Involving parents in schoolwork includes programs to enhance effective communication between home and school, to involve parents in the school decisionmaking processes, and to promote parents' abilities to support and monitor their children's academic progress.

Examples and research findings

Teachers Involving Parents in Schoolwork (TIPS) is a program developed at Johns Hopkins University. This practice was adapted for middle school students from its original form, where it aided elementary school students in math, science, and reading. This program requires parents to provide support to their children and to monitor their progress in school (Epstein, Simon, & Salinas, 1997). The TIPS Interactive Homework process was developed to provide a mechanism for parents to engage in activities that aided students in learning at home through the completion of interactive homework assignments and to improve students' performances in language arts, math, and science. While striving to improve students' achievements, TIPS aims to provide information to parents about school curricula. The TIPS program keeps parents apprised of their children's progress in school and makes efforts to keep parents of all backgrounds involved, including parents whose first language is not English, parents with lower educational statuses, parents who have multiple children at home, and parents who may be difficult to contact.

An evaluation study of the program by Van Voorhis (2003) investigated the effects of TIPS on students with different levels of academic achievement abilities. Approximately 250 students were assigned to two groups: TIPS interactive homework and noninteractive homework. Generally, the author found that TIPS encouraged more family homework involvement. Students who participated in the TIPS program answered their homework more accurately and earned higher report card grades.

Family Math targets minority and female students enrolled in grades K–8. The program consists of after-school sessions in which parents learn how to help their children develop problem-solving skills and build self-confidence in using math. Parents and children attend sessions together and work on hands-on activities. An evaluation of the program was conducted in an urban setting, in which 302 students participated in the Family Math intervention program and 323 students were assigned to a nonintervention control group (Brodsky, 1994). In this study, the program consisted of three sessions, yet not all students attended all three sessions. Results were analyzed separately by year of participation in the program. Although there was a significant impact of the program on student achievements in the first year of implementation, the author did not find a significant effect on participants in subsequent years.

Student-Parent Laboratories Achieving Science at Home (SPLASH) is a nonkit, at-home, hands-on, parent-involved science program. Students are assigned homework that requires the participation of their parents. A key consideration of the program is not to impose greatly on the time or resources of the teacher. SPLASH activities are designed so that parents can use materials that are readily available in the home. The teacher only needs to send home the activity sheets. In an evaluation of the program, 10 activities were sent home with students during a 14-week period. Approximately 100 middle school students participating in the program were compared with 99 students in the nonintervention control group. Findings revealed positive effects on parental involvement in science homework but not on homework in other content areas (Rillero & Helgeson, 1995). Despite this finding, there is an overall lack of research on the effects of this program on students' achievements in science.

The School Development Program (SDP) is a comprehensive school reform model aimed at creating a learning environment that supports students' physical, cognitive, psychological, language, social, and ethical developments. The program follows a school- and systemwide process model formulated by Dr. James P. Comer. The School Planning and Management Team is a key structure of SDP and consists of school administrators, teachers, and parents, who are responsible for developing a school improvement plan and monitoring the progress of its implementation. The Social Support Team, another team specified in the model, is responsible for disseminating to staff and parents what is known about child development, in order to help prevent academic and behavioral problems. Finally, the program also includes a Parent Team that is responsible for helping with school governance by going on day trips, engaging in fund raising, and even helping some adults with their parenting skills. The program was evaluated in a study that included more than 12,000 students from 23 middle schools in Maryland (Cook et al., 1999). The population in these

schools was predominantly African-American and represented a range of socioeconomic statuses. Researchers randomly assigned schools to intervention and nonintervention control groups. They found that the program was effective in enhancing students' social and psychological developments and that it demonstrated some positive evidence on students' academic outcomes.

CONSIDERATIONS

Home support for a child's education is important for students' emotional and academic developments. Currently, a limited number of programs focus solely on parental involvement. Yet, a growing number of educational programs are incorporating parental involvement as a component, as noted in other key issues presented in this report. Combined evidence from these programs suggests that schools should continue to encourage parental involvement, create channels of communication, and pursue structured programs to allow this type of collaboration.

What can teachers and counselors do to encourage parental involvement?

- Inform parents about classroom practices and student progress.
- Inform parents about volunteering opportunities to participate in special school activities.
- Talk to parents about aiding children's learning at home.
- Help parents find community resources and services to aid children's learning at home
- Encourage parents to talk with their children about daily happenings at school. Offer a listening ear if specific worries come up.
- Allow a translator or bilingual person to be in the room to facilitate discussions with parents who do not speak English.
- Use the school newsletter to discuss test results and what students are doing to meet higher standards.

(Source: Epstein, 1995)

More Resources on Parental Involvement

- **U.S. Department of Education, Office of Intergovernmental and Interagency Affairs. (2002). *Helping your child with homework: For parents of children in elementary through middle school.* Washington DC: Author. Retrieved December 3, 2004, from http://www.ed.gov/parents/academic/help/homework/homework.pdf**

  Teachers and counselors may recommend this booklet to parents of elementary and middle school students to help them understand why homework is important. It also offers suggestions for helping children complete assignments successfully.

- **U.S. Department of Education, Office of Intergovernmental and Interagency Affairs. (2002). *Helping your child through early adolescence: For parents of children from 10 through 14.* Washington, DC: Author. Retrieved December 3, 2004, from http://www.ed.gov/parents/academic/help/adolescence/adolescence.pdf**

  This booklet addresses questions, provides suggestions, and tackles issues that parents of young teens generally find most challenging.

- **Funkhouser, J. E., & Gonzales, M. R. (1997). *Family involvement in children's education, successful local approaches: An idea book*. Washington DC: U.S. Department of Education, Office of Educational Research and Improvement. Retrieved December 3, 2004, from http://www.ed.gov/pubs/FamInvolve/title.html**

  This book describes case studies of 20 successful education programs that were implemented in elementary and secondary schools across the United States. It is offered to stimulate thinking and discussion about how schools can help overcome barriers to family involvement in their children's education—regardless of family circumstances or student performance.

- **Jones, R. (2001). How can parents support learning? *American School Board Journal, 188*(9). Retrieved December 3, 2004, from http://www.asbj.com/2001/09/0901coverstory.html**

  This article summarizes advice from researchers and practitioners on how schools can foster parental involvement that improves student achievement. It also offers links to online resources.

TRANSITION FROM MIDDLE TO HIGH SCHOOL

Middle school students face many challenges as they move to high school, including increased academic demands, a wealth of extracurricular activities, and changing social avenues in a totally new school setting. High schools need to be aware of the challenges and plan programs to ease the transition, especially for students who may be academically at risk. Effective strategies may include restructuring and reorganizing high schools into smaller learning communities, developing school-based early intervention programs, and engaging parents, teachers, and students in the transition process.

INTRODUCTION

Each year, thousands of students make the transition from middle school to high school. For most students, this transition goes smoothly. However, for some students, especially low achieving students, the transition may be more difficult. Research indicates that low achieving students may be more prone to course failure and grade retention in ninth grade (Neild, Stoner-Eby, & Furstenberg, 2001). The academic difficulties experienced by these students also may be a factor in subsequent school dropout.

Students also may struggle with social and emotional challenges as they transition to high school. According to research, many students may experience a negative self-concept and disrupted friendships (Mizelle, 1999). In some instances, students may be experiencing these challenges at a time when their parents become less engaged and involved in their schooling (Falbo, Lein, & Amador, 2001).

What Do Students Worry About When They Go to High School?

- Having friends.
- Feeling comfortable in a large school.
- Finding classrooms.
- Succeeding in difficult classes.
- Understanding teacher expectations.
- Interacting with older, more mature students.
- Interpreting block schedules.
- Managing time.
- Finding time for social activities.

(Source: Letrello & Miles, 2003)

For middle and high school educators, these trends are especially troubling. Indeed, the research suggests that schools may be losing students—academically, socially, and emotionally—during the transition year from middle school to high school. Students are dropping out of school in an era when attaining a high school diploma is more important than ever. Unfortunately, for some young adolescents, the road leading to a high school diploma abruptly begins and ends in ninth grade.

Although this current state is a challenge for educators, it also presents an opportunity. The renewed focus on high school reform provides middle and high school educators with an opportunity to address jointly some of the fundamental issues associated with students' transitions.

KEY CHALLENGES

Why do so many students experience difficulties moving from middle school to high school? Researchers cite social, emotional, and academic factors that contribute to the difficulties associated with transitioning from middle school to high school. In general, middle school is viewed as a tumultuous time for adolescents and is especially challenging for them in terms of academic preparation and social and emotional supports (Legters & Kerr, 2001).

Social demands

Students must adjust to the new social demands of high school, such as the increased wealth of available extracurricular and social activities. At the same time, they must also meet the demands of more challenging coursework that stems from a fragmented and diversified curriculum (Legters & Kerr, 2001). In fact, several research studies suggest that eighth-grade students' academic achievement seems to decline when they enter ninth grade (Heller et al., 2002). Furthermore, for some students, social supports are disrupted during the transition if friends from middle school attend different high schools.

Organizational changes

Students may be exposed to organizational changes as they begin high school. High school students usually take four to seven different classes with a diverse set of teachers and have greater autonomy in academic tasks (Mizelle & Irvin, 2000). High school organizational patterns may contribute to student disengagement and ultimately to school dropout (Lee & Burkam, 2001).

New high school students may struggle to adjust because of the sheer size of the school. The National Center for Education Statistics noted that the average middle school enrolls 612 students and the average high school enrolls 753 students (Kaufman, Alt, & Chapman, 2001). Large high schools may offer a less personal environment, making it

easier for students to become anonymous, socially withdrawn, and/or academically disengaged, which may further exacerbate a smooth transition from middle to high school (Nield, Stoner-Eby & Furstenberg, 2001).

RESPONSES TO KEY CHALLENGES

American high schools use several strategies to meet the challenges associated with transitioning from middle school to high school. The strategies range from jump-start programs for ninth graders to academies and small learning communities (Bottoms, 2002) and aim to:

- Restructure and reorganize high schools into smaller learning communities.
- Develop school-based early intervention programs.
- Engage parents, teachers, and students in the transition process.

These strategies have multiple goals, including helping students balance social activities with academic demands and personalizing the transitional experience.

Smaller learning communities

As part of the current movement to reform high schools, districts across the country are undertaking fundamental changes in school structure. Smaller learning communities vary in structure and in the strategies that complement the structure (U.S. Department of Education, 2001a). For example, some small learning communities take the form of individual schools within a larger high school, but other small learning communities may take the form of a small separate school that is distinct from the larger school. Freshman transition activities may be implemented in conjunction with the creation of a smaller learning community.

Examples and research findings

Freshman Academies are designed to help ease the transition from middle to high school. The academy is typically located in a building separate from the high school or in a separate part of the high school. The faculty is divided into teams that represent the core curriculum areas (e.g., English, math, science). Each team shares the same students to provide individualized support when needed. This team collaboration ensures uniformity in rules and expectations among teachers. In addition, teachers try to increase student engagement by relating academic tasks across curriculum areas. Freshman Academies may also include skill labs in reading, writing, and math to enhance students' study skills and to help them prepare for standardized tests. Students assigned to Freshman Academies may also benefit from alternative scheduling patterns that may ease the transition between classes and allow for a larger variety of instructional techniques. Additional strategies that Freshman Academies may use include extended-day school services, cross-school collaboration on the curriculum, and parental involvement (Southern Regional Education Board, 2002).

Case studies of schools in the Southern Regional Education Board's network suggest that small learning communities have the potential to help students adjust to high school (2002). For example, the Scott County Ninth Grade School, a stand-alone academy in Georgetown, Kentucky, showed improvements in the academic achievements of its ninth graders across a 5-year period. From 1995 to 2001, the math scores of ninth-grade students on the California Test of Basic Skills-5 (CTBS-5) increased by 14 points. The students' scores on the total battery of the national CTBS-5 also increased by 6 points. The daily attendance rate increased from 89 percent in 1995 to 93 percent in 2001. Freshman failure rates reduced from 17 percent to 6 percent from 1995 to 2001, and referral rates reduced 54 percent during the same time frame.

Similarly, in a separate pull-out freshman academy established for ninth-grade students at Henry County High School in Kentucky, 11 of 19 students were enrolled in a first semester-long program that targeted math, science, and English. The students went on to earn credit for pre-algebra and English during the second semester, and they earned Cs or higher in science during the second semester. Then, when in 10th grade, they also passed biology.

Some comprehensive school reform models, such as the Talent Development High School (TDHS) model, also address ninth grade transition issues. The TDHS model for ninth graders includes several key components, such as the ninth grade success academy, transition courses in math and reading, a freshman seminar, and after-school assistance (Kemple & Herlihy, 2004).

Led by interdisciplinary teacher teams, the academy is separate from the larger school and maintains an independent management team and faculty with an emphasis on the ninth-grade curriculum, especially as it relates to the core academic subject areas. Students in the academy are required to take a double dose of math and English, and students who are not prepared for the coursework are provided intensive transition courses. The emphasis on academic preparation in grade 9 is complemented by a required freshman seminar course, which provides assistance with social skills, career and college possibilities, and study skills.

Through these instructional and organizational changes, TDHS seeks to improve the academic achievements of high-risk students. The model also incorporates parental involvement, extensive professional development for teachers, and on-site technical assistance from the developer.

The TDHS model was studied across five large, nonselective comprehensive high schools in a large urban district

"characterized by low student engagement, inadequate prior preparation among entering ninth graders, low ninth-grade promotion rates, and continued problems in the upper grades" (Kemple & Herlihy, 2004). The percentage of first-time ninth graders who completed a core academic curriculum increased from 43 percent prior to implementation of TDHS to 56 percent following implementation. The increase was three times the level of increases at similar schools in the district. Additionally, ninth-grade promotion rates increased by slightly more than 6 percent, but decreased 4 percent in comparison schools. (The "Comprehensive School Reform Models" section of this report contains a complete description of TDHS.)

School-based early intervention programs

Another design to support the transition from middle to high school is the implementation of a school-based intervention program. These programs may begin during middle school or the summer prior to entering high school and continue throughout the freshman year. Generally, activities are designed to familiarize students with the school, to target students with low academic achievements, and to provide opportunities for immediate involvement in the high school culture.

Examples and research findings

The School Transitional Environmental Program is a school-based intervention program that targets students with high-risk behaviors, such as low academic achievements, behavior problems, and absenteeism (Osher, Morrison, & Bailey, 2003). This program focuses primarily on organizational and structural changes in the school to make the transition less threatening for students. Program participants are grouped together for homeroom, counseling and advising sessions, and core classes. The physical locations of the students' classes are also within close proximity. By reducing students' anonymity, increasing students' connectedness with peers and school, and improving organizational structures, the program seeks to improve academic performance, decrease behavior problems, and reduce absenteeism.

Evaluations of the program yielded mixed results. In one study, program participants had significantly better attendance records, GPAs, and more stable self-concepts compared with a control group (Felner, Ginter, & Primavera, 1982).

In a second study, 154 ninth-grade students in a large urban high school were randomly assigned to a program participation intervention group and a nonintervention control group (Reyes & Jason, 1991). The results of this study did not show a positive impact of the program on academic outcomes. However, program implementation differed in the two studies, which may account for the differences in the findings. For example, in the second study students shared a smaller proportion of their main classes and did not have the same physical proximity of classes as the students in the first evaluation study.

Parent, teacher, and student involvement

Students may feel a lack of social supports from friendships and/or teacher–student relationships when they transition from middle to high school. To create appropriate social supports, some middle schools have enlisted the help of parents, teachers, and high school students to facilitate the transition process.

Increased parental involvement may take different forms, such as parent-teacher conferences and parent visits to their child's new school (Falbo, Lein, & Amador, 2001). Parental involvement may provide ninth-grade students with support during the transitional process and may lead to more active engagement of parents during their child's high school years.

Another dimension of the transition process involves teachers, counselors, and principals at both middle and high schools. For example, the middle school and high school counselors may communicate requirements for course selection in ninth grade, which could serve to reduce potential barriers to smooth transition (Mizelle & Irvin, 2000). Similarly, teachers in the middle school may provide the high school teachers with information about the student's academic progress. And finally, the principals from the schools could work collaboratively to facilitate a smoother transition process.

One of the more prevalent forms of peer involvement pairs a middle school student with a high school student. In some instances, the relationship between the middle school student and the high school student starts before the middle school student enters high school. For example, a high school student may talk to an eighth grader about what it's like to attend the high school and bring the middle school student to high school classes and extracurricular activities. The high school student may then help the middle school student when school begins. In this way, the high school student serves as a source of support for the middle school student prior to and during the transition process.

Examples and research findings

Several school districts have been seeking the active involvement of students, teachers, and parents in the transition process. For example, the Rockcastle County School District in Kentucky has implemented Crossing the Road, a transition program—developed by middle school and high school staff and parents—that focuses on the academic and social preparations of high-risk, eighth-grade students.

The program begins with two pretransition activities: peer shadowing and bridging component. Peer shadowing helps to acquaint the middle school students with the high school. Shadowing gives middle school students opportuni-

ties to meet and talk with high school students in the high school setting. Students also may attend an orientation day and parents can attend a Step Up night. These events introduce both students and parents to high school facilities, academic requirements, and scheduling.

The bridging component targets eighth-grade students' academic skills. Based at Rockcastle High School, the program has high school teachers serve as lead academic instructors of the weeklong program. As a followup, the high school teachers provide academic support through after-school tutoring for ninth-grade students once they enter the high school.

A case study of a high school in Kentucky in which all incoming freshman were considered to be at risk when adjusting to high school life, has demonstrated a positive impact of the Crossing the Road program (Southern Regional Education Board, 2002). Students who participated showed improvements on the Kentucky Comprehensive Test of Basic Skills. Freshman course failure rates, absences, and referrals decreased as well. However, a control group was not used in this study.

Link Crew, developed by Learning for Living, is another high school transition program. It trains juniors and seniors to be Link Leaders who provide support and guidance to freshmen. The program begins with a freshman orientation and continues to provide academic and social follow-up activities throughout the year. Each Link Leader is assigned 10 freshmen to facilitate small group discussions and more personalization. The program's developer has reported increased attendance, decreased discipline referrals, and improved academic performance in high schools that have used the Link Crew transition program. However, no evidence of research-based results on the program was found.

Components of an Effective Transition System

- Continuous planning with teacher involvement.
- Working together to bridge communication gaps.
- Creating and communicating high expectations for all students.
- Providing challenging and meaningful assignments.
- Arranging for extra help and extra time to meet high standards.
- Creating flexible schedules.

(Source: Bottoms, 2002)

CONSIDERATIONS

Students, educators, and parents share the responsibility to help students successfully transition from middle to high school. In addition to the programs described above, students may seek conversations with academic counselors or older friends and siblings to help them face this transition (Letrello & Miles, 2003). Activities that promote high school visits prior to ninth grade (e.g., attending athletic events at the high school) could be helpful to middle school students. To ease the transition, students themselves recommend forming good study habits, getting involved in extracurricular activities, completing homework assignments, and being prepared to meet new and different people. To be successful, researchers and middle and high school educators need to work closely with parents and students toward formulating successful transitions for eighth-grade students.

Additional Resources

- **Juvonen, J., Le, V., Kaganoff, T., Augustine, C., & Constant, L. (2004).** ***Focus on the wonder years: Challenges facing the American middle school.*** **Santa Monica, CA: Rand Education.**

  This report describes the obstacles that middle school students may face in achieving academic success and suggests strategies to overcome them.

- **Mizelle, N. B., & Irvin, J. L. (2000).** ***Transition from middle school into high school.*** **Westerville, OH: National Middle School Association. Retrieved December 17, 2004, from http://www.nmsa.org/research/res_articles_may2000.htm**

  This papers focuses on the experiences of adolescents as they transition to high school and suggests activities and articulation practices to ease the process.

LITERACY AND READING: HIGH SCHOOL

Many high school students are not reading as well as necessary to be academically successful. All content area teachers should be aware of difficulties that some students face with literacy and plan instruction that helps foster literacy growth. High schools may incorporate one of the following approaches to help students: extra-help reading courses for students that have weak fluency and difficulties with comprehension; a reading course to provide direct instruction in phonemic awareness, decoding, and word attack skills for more severely disabled high school students; instructional practices for all students within a school; or a comprehensive school reform model with a strong literacy component.

INTRODUCTION

Students need to have proficient literacy skills in high school in order to succeed academically. In high school, students should be able to read increasingly complex textbooks, supplementary materials, and electronic texts. Some students engage in these academic tasks with little or no background knowledge or interest in the subject. Furthermore, teachers in high schools expect students to work independently and to apply study skills to be successful (Roe, Stoodt, & Burns, 2001). However, high schools have rarely addressed literacy and literacy instruction directly. High school teachers and students often view literacy simply as a tool to use in the acquisition of facts.

The reading scores for older adolescents have not been encouraging. As measured by NAEP assessments, data continue to confirm that students are not able to bring these skills to bear during performances on reading tasks (Grigg, Daan, Jin, & Campbell, 2003). Although there was some increase in eighth-grade scores in 2003, NAEP statistics indicate that reading scores of 12th-grade students have remained flat for 20 years. Additionally, there are significant gaps in performances among racial and ethnic subgroups and between male and female students. There are persistent gaps between White children and minority groups and between children from higher and lower socioeconomic backgrounds. On average, female students outperform male students.

Additionally, NAEP also noted a decline, from 1984 to 1999, in the amount of reading that older adolescents do for fun (Campbell, Hombo, & Mazzeo, 2000). Specifically, the longitudinal data showed yearly, monthly, weekly, and daily declines in the percentage of 17 year-old adolescents who read for fun.

Literacy development for adolescents depends on their motivation and acquired skills related to the alphabetic principle, fluency, vocabulary, and reading comprehension (Alliance for Excellent Education, 2004, January). Students are able to benefit from reading instruction if they are motivated to read and feel that reading is relevant to their lives (Guthrie & Wigfield, 2000.) Although the majority of high school students have mastered the basic skills related to the alphabetic principle, 10 percent of middle and high school students come to secondary schools with weaknesses in the alphabetic principles, such as phonemic awareness, the ability to manipulate the sounds of oral language and phonics, and the relationship of letters to sounds (Curtis & Chmelka, 1994). Both fluency and strong vocabulary knowledge affect reading comprehension (Snow, 2002).

KEY CHALLENGES

Two key questions can be asked when discussing the current state of reading in high schools:

- What factors affect literacy growth for high school students?
- How can teachers address literacy development in high school classrooms?

These questions need to be answered by examining the complex context of high school, the types of instruction that occur in that setting, and the role of teachers' beliefs and actions to shape literacy instruction and literacy use in high school classrooms (Alvermann & Moore, 1991).

High school context

Various reasons are cited for difficulties in putting in place effective reading instruction programs at the high school level. High schools are multifaceted and complex organizations. Their division into subject areas tends to isolate each content area domain. Additionally, there is a large amount of course material that must be taught during each school year within the constraints of instructional blocks, standardized testing, and the conflicting demands of abundant peripheral activities, such as assemblies, special programs, sports, and clubs. Students must juggle social needs and extracurricular activities with increased academic demands (O'Brien, Moje, & Stewart, 2001).

The context of high schools does not easily support a reading program. Schedules, budgetary constraints, and a lack of understanding of the need for a reading program contribute to the scarcity of programs to meet the needs of struggling readers. Historically, most programs have existed within special education departments of high schools to serve the needs of special education students (Barry, 1997).

Instruction

Another reason cited for the limited focus given to literacy development in high school is the organization of

instructional time. To cover the content material and to maintain classroom order, teachers often use the lecture-recitation model. This approach does not promote student engagement, interactive discussion, or engagement with text. Students often choose not to read the textbook knowing the teacher will cover the material in class (Schoenbach, Greenleaf, Cziko, & Hurwitz, 1999).

Teacher knowledge, beliefs, and attitudes

Teachers' knowledge, beliefs, and attitudes toward literacy instruction in high school affect their approaches to helping students improve reading skills. The teachers often feel that literacy instruction should take place in elementary schools and that high schools should focus on teaching content. English teachers may feel that teaching literature is teaching reading or that reading instruction is only for the most severely disabled students (Irvin, Buehl, & Klemp, 2003).

High school subject area teachers may be limited in their understanding of adolescent literacy needs based on their classroom experiences teaching content subjects. In a study of 102 high school teachers and 29 middle school teachers, secondary teachers were asked to articulate their past experiences with reading in their classrooms. Teachers' concerns were categorized in the following manner:

- Students do not perceive reading as meaningful.
- Students do not value the act or process of reading.
- Teachers feel frustrated about how to teach reading.
- High-stakes assessments exacerbate the problem.

Teachers laid blame on students, inadequate teaching, difficult textbooks, the use of a single text, or peripheral factors, such as parents, colleagues, or previous teachers. As a result, teachers may prepare lessons that deliver the content material to the students, thus circumventing their needs to read the textbook.

Additional factors

Two additional factors further decrease the ability of high schools to foster literacy growth in adolescents. First, the range of reading skills in secondary classrooms is continuing to widen as more ELLs enter American schools. The National Center for Educational Statistics reports that the number of ELLs in public schools has increased by approximately 900,000 from 1993 to 2000 (Wirt et al., 2004).

The second factor is the influx of technology use in schools. Reading electronic text is more demanding than print text. To comprehend electronic text, students must apply reading skills to determine the veracity of texts and to manage the flow of text between hyperlinks, graphics, and print. Electronic text may be used to facilitate literacy development but only if students are taught how to use the technology effectively (Vacca & Vacca, in press).

There has been a gradual increase of interest in adolescent literacy needs in recognition of the factors that affect literacy growth and the possible impact that teachers could have on high school students' literacy development. For example, as noted in the middle school literacy section, the International Reading Association and the National Middle School Association have issued position papers on adolescent literacy to raise awareness in the educational community of the diverse literacy needs of adolescents and to influence policymakers: *Adolescent Literacy Position Statement* (1999) and *Supporting Young Adolescents' Literacy Learning* (2002).

"The overarching problem seems to be that students cannot read, do not want to read, or read but do not understand the information."

(Source: Bintz, 1997)

RESPONSES TO KEY CHALLENGES

To improve the reading abilities of all high school students, adolescent literacy needs are being addressed through a variety of approaches that are designed to work with the context of high schools and to modify teacher beliefs and practices. Similar to the middle school approaches to literacy instruction, high schools can incorporate one or several of these approaches to improve literacy development for high school students:

- Extra-help reading courses for high school students who can decode moderately well but have weak fluency and difficulties with comprehension.
- A reading course or a series of reading courses designed to provide direct instruction in phonemic awareness, decoding, and word attack skills for more severely disabled high school students.
- Instructional practices infused into content instruction to enhance literacy development for all students within a school.
- A comprehensive school reform model with a strong literacy component.

There are also comprehensive reading programs that combine the first and second approaches to meet a wider range of reading difficulties. Finally, there are published curriculums that fit each of these approaches.

Extra-help reading courses

Extra-help reading programs target students who have moderate difficulties with reading and provide instruction in developmental steps from a review of basic decoding strategies to more concentrated work in vocabulary and

comprehension development. These reading classes are usually taken by high school students in addition to their schedule of core academic subjects.

Examples and research findings

Read 180 and Reading is FAME are examples of programs that are designed to meet the needs of students who have only moderate difficulties decoding but who need substantial work in fluency and comprehension. The goals of Read 180 are to provide individualized, adjusted reading instruction; to practice and apply skills in multiple contexts; and to support and motivate students to become lifelong readers. Efficacy studies have been published on Read 180; however, they do not include studies with high school students. Consequently, there is little research-based evidence on the program's effectiveness for high school students (Policy Studies Associates, 2002).

Reading is FAME is structured as a developmental intervention program of four semester courses that presents skills sequentially. Instruction focuses on the alphabetic principle, fluency, vocabulary, and comprehension. The developer conducted an evaluation study at Boys Town, a reading center that is part of the National Resource and Training Center (Curtis & Longo, 1997). Findings indicated that program participants experienced an average gain of 2 grades levels after 36 weeks of instruction—equal to approximately 1 year of growth per semester. However, these findings should be interpreted with caution because the study did not use a nonintervention control group.

SRA Corrective Reading and Language! are programs that provide comprehensive literacy instruction for high school students. The programs are designed with tightly sequenced lessons and systematic instruction that emphasize the development of the alphabetic principle as a precursor to more advanced comprehension skills. These programs can be offered as a stand-alone course or as a supplement to a language arts class.

Three specific programs designed to meet the needs of severely disabled readers are Lindamood-Bell, the Wilson Reading System, and RAVE-O. These programs focus on remediating phonological problems in small group instructional settings that encourage students to draw upon multiple senses to develop the necessary phonological skills for successful reading. Research conducted on younger children indicates growth; however, there has not been substantial research conducted on these programs with high school students.

Literacy programs across the content areas

Another literacy intervention approach is to infuse reading strategies into all content area subjects. This method may start with systematic professional development for teachers to learn a framework of strategies that fosters higher levels of comprehension and vocabulary development.

Examples and research findings

Three approaches focus on the professional development of teachers: Project CRISS, the Strategic Instruction Model, and the Reading Apprenticeship framework. Although these approaches differ slightly, the goal of each program is to enhance instructional routines that foster literacy growth while students learn specific content.

Project CRISS has been evaluated through three in-house studies from 1993 to 1995. Middle and high school students performed significantly better than students in a matched control group on a developer-designed posttest of delayed recall of reading comprehension, indicating promising results. An independent evaluation of Project CRISS has not been conducted.

The Strategic Instruction Model focuses on two goals: content enhancement routines that help teachers to organize and present information and a learning strategies curriculum that provides students with the skills and strategies to learn the subject matter. This model has been widely disseminated, and a number of studies with positive results have been published in peer-reviewed journals. The research studies focus on specific aspects of the model, such as a learning strategy or an instructional routine.

In Strategic Literacy Initiative: Reading Apprenticeship, teachers act as models for strategic reading processes. This approach is designed to help students develop into powerful readers as they learn to draw upon their own strengths as learners. Research results show significant gains on standardized reading comprehension tests by a highly diverse population of urban 6th- to 12th graders. The most notable increases in achievement occurred among lower performing students. However, these findings should be interpreted with caution because the study design did not use a control group.

Some high schools have developed their own programs based on this model. Typically, the faculty identifies a set of instructional strategies to be used in all content classes and arranges for the delivery of professional development on these strategies. Additionally, a school might incorporate additional strategies, such as in-class tutoring, sustained silent reading, and/or aligning the curriculum with standards. This approach is usually done at the district or school level. Hoover High School in San Diego, California, adopted this approach to improve literacy skills for its students (Fisher, Frey, & Williams, 2004). After 2 years of using this schoolwide approach, the students at Hoover High School showed average gains of 2.4 years in their reading achievements.

Literacy focus within a comprehensive school reform model

TDHS is a CSR model with a strong literacy component. For ninth graders, the Strategic Reading course focuses on

the development of fluency, comprehension, and writing skills. There are four learning activities in a daily lesson, teacher modeling, teacher-directed interactive mini-lessons, cooperative learning activities, and student choices for independent reading. For 10th and 11th graders, there are three additional levels of ongoing literacy support. Results from three studies of four urban districts indicated statistically significant greater achievement gains for students in the TDHS CSR literacy program compared with students in matched control schools (Balfanz & Jordan, in press).

CONSIDERATIONS

Although high school students face increased demands for higher literacy skills, reading skills remain stagnant and achievement gaps persist. In high schools, reading comprehension instruction is minimal, high-stakes testing affects reading instruction, teacher preparation does not adequately address students' needs for reading instruction, and more knowledge about reading comprehension is needed (Snow, 2002). Furthermore, the inability to derive meaning from text is one of the most apparent deficiencies of students' reading abilities at the secondary school level. Reading programs at the secondary level should be appropriate for the students' reading levels and ages and offer an approach that meets the needs of different learning styles, abilities, backgrounds, and interests. A reading program should provide instruction in phonics, phonemic awareness, fluency, comprehension, and writing. Additionally, a comprehensive program should address methods to motivate and engage students in the learning process. Schools should consider research on the different programs and understand that one program may not meet the needs of all students (Alliance for Excellent Education, 2004, May).

In addition to the four primary approaches described above, schools may adopt variations using research-based instructional routines designed to foster literacy growth within the context of content classes. Regardless of the approach, literacy growth and development in high school are essential to further academic success (Sizer, 1984).

More Elements Aimed at Improving Adolescent Literacy Achievement

- Direct, explicit literacy instruction.
- Effective instructional principles embedded in content.
- Motivation and self-directed learning.
- Text-based collaborative learning.
- Strategic tutoring.
- Diverse texts.
- Intensive writing.
- Technology.
- Ongoing formative assessments.
- Extended time for literacy.
- Professional development.
- Ongoing summative assessments of students and programs.
- Teacher teams.
- Leadership in literacy knowledge and instruction.
- Interdisciplinary and interdepartmental literacy program.

(Source: Biancarosa & Snow, 2004)

Additional Resources

- **Biancarosa, G., & Snow, C. E. (2004). *Reading next: A vision for action and research in middle and high school literacy, a report from Carnegie Corporation of New York.* Washington, DC: Alliance for Excellent Education. Retrieved December 6, 2004, from http://www.all4ed.org/publications/ReadingNext/index.html**

  This report recommends strategies to meet the needs of struggling secondary readers.

- **Meltzer, J. (2001). *Adolescent literacy resources: Linking research and practice.* Providence, RI: Northeast and Islands Regional Educational Laboratory at Brown University. Retrieved December 6, 2004, from http://www.alliance.brown.edu/pubs/adlit/alr_lrp.pdf**

  This resource is organized around four central components: motivation, research-based literacy strategies for teaching and learning, reading and writing across the curriculum, and organizational structures and leadership capacity.

- **Peterson, C. L., Caverly, D. C., Nicholson, S. A., O'Neal, S., & Cusenbary, S. (2000). *Building reading proficiency at the secondary level: A guide to resources.* Austin, TX: Southwest Educational Development Laboratory.**

  This guide documents resources available to educators who work with struggling readers. Part 1 provides background information on the scope of the problem, approaches to assessing struggling adolescent readers, theory and research on adolescent literacy, characteristics of effective programs, and principles of effective professional development for teachers who work with adolescents. Part 2 provides an overview of programs and strategies.

- **ELA Leaders' Task Force. (n.d.). *A guidebook for adolescent reading* (2nd ed.). Denver, CO: Colorado Department of Education. Retrieved December 2, 2004, from http://www.into.ie/downloads/GuidebookforadolescentReading.pdf**

  This guide provides concrete advice on how to assess adolescent reading skills, describes best practices in the teaching of reading, and recommends types of professional development and resources that will help schools develop quality reading programs.

English Language Learners: High School

High schools are receiving large numbers of students that enter with limited English proficiency. These students enter with diverse backgrounds that range from extensive prior schooling and high levels of literacy in their native languages to limited literacy skills in their native languages. There is no single formula to successfully educating this diverse population of students, so high schools may wish to consider factors and programs that best fit the needs of their student bodies. Common approaches include extra help in literacy, science, and math and dropout prevention programs.

INTRODUCTION

High school students face many challenges, especially students who are ELLs. While these challenges are often linguistic in nature, they may also be due to socioeconomic factors, the social resources that parents or communities provide them, or their own prior educational attainment. Researchers often categorize ELLs into several groups, such as indigenous minorities, regional minorities, and immigrant minorities. This section addresses the challenges and approaches to educating students from the third group (immigrant minorities), who are foreign born themselves or who have one or two foreign born parents who speak languages other than English at home (Devries, 1989).

Schools are faced with ever increasing numbers of students who enter school with little or no spoken and written English proficiency. The percentage of 5- to 24-year olds who spoke a language other than English at home increased 118 percent from 1979 to 1999. Furthermore, the percentage of 5- to 24-year olds who spoke a language other than English at home and spoke English with difficulty increased 110 percent. Most students who spoke a language other than English and who spoke English with difficulty, spoke Spanish (Wirt et al., 2004).

KEY CHALLENGES

High school ELLs face tough challenges due in part to the increasing complexity of the academic and social demands placed upon them. Without support, these students may exhibit low performances in school, drop out of school, or miss additional education and training opportunities that prepare them for successful adulthood. The National Center for Education Statistics reports that smaller percentages of students from minority and ethnic groups graduate from high school (Wirt et al., 2004). Hispanic students are at a higher risk than other ethnic minorities to drop out of high school. About 44 percent of Hispanic ELLs drop out of high school, compared with 7.4 percent of non-Hispanic ELLs (Mehring, 2004).

Factors That Shape Immigrant Students' Needs and School Success in Secondary Schools

- Language ability in English and native language.
- Parents' educational profile.
- Academic background.
- Immigration status (legal versus illegal).
- Economic status and success in their native country and the United States.
- Amount of trauma experienced in native country and during the move to the United States.
- Family expectations and support.
- Stability in the American educational system.

(Source: Walqui, 2000)

Finally, for high school ELLs, research suggests a direct relationship between a student's access to social capital and school success. Social capital is explained by Coleman (1988) as the extent to which one has access to information channels, obligations, expectations, and trustworthiness in a community or society. With regard to ELLs, social capital may be viewed as access to information channels that can lead to positive relationships between the school and community, increased academic success, graduation, and a successful postsecondary transition.

Transitioning into another school—even within one's own social network—can be challenging, especially for ELL high school students. Students who transfer from one area to a second or third geographical location tend to have problems adjusting to new settings (Rumberger, 1995). A combination of additional factors, such as a lack of academic preparation, large comprehensive high schools, inaccurate or delayed assessment of academic proficiency, or a lack of awareness of social conventions in the new setting, may exacerbate a successful transition to a new school in a different geographical area (Warren, 1996). For ELLs making these transitions or changes, there is little understanding among educators and researchers as to the ways in which these factors may impact high school academic achievement and educational persistence.

Although high school ELLs may be unable to communicate in English, this does not necessarily mean that they are incapable of functioning academically on grade level (Valenzuela & Dornbusch, 1994). To the contrary, some ELLs may be able to converse well with peers but are unable to perform well academically because of limited proficiency in academic English used in classrooms (Walqui, 2000).

High schools may be underprepared to meet the demands placed upon them by the increasing population of ELLs. Secondary school teachers may not be knowledgeable of methods and strategies to support ELLs in content classrooms. Classroom-, district-, and state-mandated assessments may not be appropriate for all ELLs. Although bilingual assessments or accommodations for additional time for assessments are optimal (Stanton-Salazar & Dornbusch, 1995), they may not be available. Furthermore, schools may lack the appropriate social supports for immigrant students.

ELLs entering high school may have varied levels of competencies in reading and writing in their native languages. Regardless, the acquisition of competence in basic educational skills, such as reading, writing, vocabulary, language, and other basic skills in one's native language in elementary school, are important predictors of success in middle and high school (Waggoner, 1995; Clifton, Perry, Parsonson, & Hryniuk, 1986). However, if students are not academically competent in their native languages, then these low academic skills are likely to transfer to a second language (Ready, 1991; Warren, 1996). Thus, for many ELLs, high school educators face a complex challenge of providing effective content and skills instruction while teaching English at the same time.

Barriers to parental involvement for high school ELLs often compound these challenges. Parents may be unable to communicate effectively with personnel at the school, understand information sent home from the school, or understand the academic requirements.

RESPONSES TO KEY CHALLENGES

The American Youth Policy Forum suggests several approaches for high schools to implement and meet the needs of ELLs. The approaches focus on three areas: increasing academic achievements in English, literacy, and other content areas; increasing communication between home and school; and promoting supports that help ELL students in successful postsecondary transitions (American Youth Policy Forum, 1999). These areas of focus may guide schools to help ELLs improve literacy skills and make successful transitions and to support parents as they seek to understand the educational system and communicate effectively with schools.

Instruction in literacy

High schools may use different approaches to address the literacy needs of ELLs. These approaches may include professional development for teachers to increase their proficiency in meeting the needs of this population, restructured learning time during the school day, and individualized support.

Examples and research findings

The Community Language Learning/Comprehension Processing Strategies Model uses similar instructional strategies as those that are used for teaching reading comprehension to native English speakers. A study of the effects of a program following this model involved Haitian students from Southern Florida who spoke Haitian Creole (Shames, 1998). Students were assigned to one of three intervention classrooms and one control classroom for an entire school year. Each of the three intervention classrooms received a different treatment strategy: One classroom had informal interactions with text in informal settings; the second included comprehension-focused groups that concentrated on strategies for text comprehension; and the third represented a blend of the first two. The study also involved a control group that received traditional instruction. An evaluation of the program revealed that the treatment groups collectively outperformed the comparison group on the Idea Proficiency Test Reading Scale.

Instruction in science and math

The aim of these programs is to provide science and math instruction to students who have little experience in these subjects or who have had little formal schooling. Students learn science concepts and the processes involved in scientific thinking.

Examples and research findings

Cheche Konen is a Haitian Creole term meaning "search for knowledge." This approach emphasizes active inquiry, student collaboration, and interdisciplinary teaching. A teacher enhancement program is also part of the approach. Teachers attend a seminar that encourages them to use varied resources for science teaching and to change from teacher-centered to student-centered instructional practices. The impact of this program on high school ELLs was evaluated as part of the Innovative Approaches Research Project, which was funded by the U.S. Department of Education. The study concluded that the model was successful in changing both student and teacher behaviors. Students reportedly gained deeper knowledge and appreciation of science, improved their reasoning skills, and increased their abilities to generate oral explanations in English (Rosebery, Warren, & Conant, 1992).

Project PRISM (Pre-Engineering Instruction/Science and Mathematics) serves Chinese-speaking ELLs enrolled in grades 9–12. The program was designed to provide the students with intensive English instruction and support services to match their performances in mathematics, science, and pre-engineering programs with those of other students. The program's design also includes professional development on bilingual and multicultural subjects;

developing mathematics, science, and pre-engineering curriculum materials in Chinese; and familiarizing parents with the education system and project goals. An evaluation of the program was conducted in one high school in the Manhattan Borough of New York City. The author reported that program participants had achieved significant gains in mathematics, science, pre-engineering, and computer courses (Yanping, 1994). However, these results should be interpreted with caution because no control group was used in the study.

Dropout prevention programs and transition to higher education

These programs aim to increase the number of ELLs who graduate from high school. Some programs may also include additional courses and assistance to help ELLs reach the minimum requirements for enrollment in college.

Examples and research findings

High School Puente was created to help Hispanic students move successfully from high school into 4-year colleges. This program provides counseling and adult mentors to students, who are interested in college enrollment, rigorous 2-year English courses with a curriculum that is focused on Mexican-American and Latino literature and experiences, and field trips to college campuses. An evaluation compared 75 Puente participants with 150 students who were matched on demographic and academic profiles. Findings revealed that the two groups did not differ in high school retention or GPA. However, Puente students were significantly more likely than students in the control group to have completed their core academic courses and key entrance examinations that are required for enrollment in 4-year colleges (Gandara, Mejorado, Gutierrez, & Molina, 1998).

Project RESPECT was designed to help ELLs in grades 10–12 graduate from high school, pursue higher education, and enter job-training programs. The program's design includes interdisciplinary teams that build cross-curricular instructional units, multimedia instructional materials, a parent training program, and a peer support network. An evaluation was conducted in one high school in Los Angeles, California. The authors reported a significant increase in students' English performances and attendance rates at school (Kester, Plakos, & Santos, 1997). However, these findings should be interpreted with caution because no control group was used in the study.

General approaches

Given the shortage of comprehensive programs to provide for the needs of high school ELLs, educators may wish to consider a variety of approaches that facilitate or improve students' adjustments and learning but do not involve the adoption of an externally developed program:

- Family engagement: Schools may plan to engage families of ELLs early during the school year. Principals might take a comprehensive approach by paying attention not only to English instruction for ELLs but also to socioeconomic factors, such as parents' possible inabilities to attend meetings or to help with homework or students' levels of participation in school.
- Community partnerships: Community involvement has been shown to have direct contributions on academic success. For parents of ELLs who do not have direct access to community networks, schools may serve as intermediaries between community resources and communities in need. Many immigrant communities are recognizable because they tend to have different types of community enclaves, such as stores, churches, and other places where members convene for religious, community, academic, and other social reasons. Principals and schools should see these venues as opportunities for support in the acquisition of information for the communities whose children they serve.
- Postsecondary transition programs: Some high school programs have bridge programs with local universities and community colleges that may help students to transition into postsecondary institutions. Such institutions could also be tapped for interinstitutional organization collaboration through student groups and organizations to help the new immigrant students adjust to their new surroundings and environments. Recent high school graduate students attending these institutions could be contacted and asked to serve as mentors. The work of Snow, Barnes, Chandler, Goodman, & Hemphill (1991) clearly shows that in the cases of minority and sometimes low-income students, if the parents have access to resources in the community, then they are likely to make use of them. This partnership or collaboration is likely to positively influence the children's school experiences, academic outcomes, and relationships with teachers.
- Afterschool/summer school programs: These programs have become well-known resources for improving academic achievements and other aspects of successful educational experiences. Some members of the communities described above could also be invited to participate as tutors, language facilitators, and mentors in after-school programs for high school students and their families in need of help. This means that in addition to tutoring the students, students who are education or social science majors could take independent unit classes and work in local school districts, helping to ease the transition process for local immigrant students and their families by providing some of the services needed.
- Newcomer programs: Newcomer programs are one method that some high schools have used to serve the

needs of ELLs who arrive from their native countries with limited formal schooling. These programs may vary in size and scope but typically are an intensive language development and academic and cultural orientation program for a specified period of time. Students may attend school in a separate building or attend a program within a larger school. The *Directory of Secondary Newcomer Programs in the United States, Revised 2000* provides profiles of 115 newcomer programs that operate across 29 states and in the District of Columbia (Center for Applied Linguistics, 2000).

- Multiple assessments: Assessments in the native language and by staff who help with initial assessment could play an important role in addressing the academic and transition needs of ELLs. They could help place ELLs in correct content-level classrooms and appropriate classes for English language development.
- Peer mentors: Numerous authors have stated the need for mentoring and cross-age tutoring among older students. This concept could conceivably be applied to adolescent immigrants, by exposing newer immigrants to students who may fit the same profile, but who have attended the schools for longer periods of time and who may be able to help them with their multiple transitional challenges.

CONSIDERATIONS

Limited models and programs are available to address the needs of high school ELLs. Some programs focus on such specific subpopulations of ELLs as Hispanics or Asian students. Researchers have focused primarily on elementary ELLs (Fashola & Slavin, 1997, 1998; August & Hakuta, 1998; Rossell, 2003). However, there has been a renewed focus on all aspects of adolescent literacy and meeting the needs of special populations, including ELLs.

According to Walqui (2000), researchers may wish to explore some of the following areas in addressing the needs of high school ELLs:

- The appropriate measurement of English proficiency to ensure appropriate placement.
- Areas for teacher growth to meet the needs of immigrant students.
- Effective instructional approaches.
- Methods for increased family involvement.

Although there is a long way to go in meeting their needs, a plan that combines a variety of the suggestions into a comprehensive, school-based approach may provide the greatest benefits to ELLs.

Key Features of Successful High School Programs for Language Minority Students

- Valuing the students' languages and cultures.
- Creating and communicating concrete high expectations.
- Making the education of these students a priority.
- Providing effective staff development to help teachers.
- Offering a variety of courses and programs.
- Having a counseling program that gives special attention to these students.
- Encouraging parents to become involved in the education of their children.
- Sharing a strong commitment within the school community to empower language-minority students through education.

(Source: Lucas, Henze, & Donato, 1990)

Additional Resources

- **Center for Positive Practices (http://www.positivepractices.com/BilingualEducation)**

  This site offers in-depth information, research, and evaluation on different topics related to bilingual education and the education of students with limited English proficiency.

- **Center for School and District Improvement (2004, March). *English language learner (ELL) programs at the secondary level in relation to student performance.* Portland, OR: Northwest Regional Education Laboratory. Retrieved December 6, 2004, from http://www.nwrel.org/re-eng/products/ELLSynthesis.pdf**

  This report focuses on ELL programs in middle and high schools and presents information on programs, approaches, and student performance.

- **Berman, P., Aborto, S., Nelson, B., Minicucci, C., & Burkart, G. (2000). *Going schoolwide—Comprehensive school reform inclusive of limited English proficient students: A resource guide.* Washington, DC: National Clearinghouse for Bilingual Education. Retrieved December 6, 2004, from http://www.ncela.gwu.edu/pubs/resource/resourceguide.pdf**

  The guide may help schools conceptualize, implement, and measure the success of reform efforts geared to the national mandate to have all students achieve high standards, including language minority students.

- **Genesee, F. (Ed.). (1999). *Program alternatives for linguistically diverse students.* Santa Cruz, CA: Center for Research on Education, Diversity, and Excellence. Retrieved December 6, 2004, from http://www.cal.org/crede/pubs/edpractice/EPR1.pdf**

  The purpose of this report is to provide information on programs and approaches for educating students from diverse linguistic and cultural backgrounds.

- **Kusimo, P., Ritter, M.G., Busick, K., Ferguson, C., Trumbull, E., & Solano-Flores, G. (2000). *Making assessment work for everyone: How to build on student strengths.* San Francisco, CA: WestEd. Retrieved December 6, 2004, from http://www.wested.org/cs/we/view/rs/440**

  This book covers relevant research about assessment as it relates to student diversity. It provides information on how to select, modify, or create assessments for all students, regardless of their cultural or linguistic backgrounds.

HIGH SCHOOL DROPOUTS

Dropout rates continue to be a major concern for educators and communities. There are serious economic and social consequences not only for the dropouts but also for society at large. Early identification of students at risk is important to increase their opportunities for success through effective prevention programs and one-on-one attention. Communities should work together to prevent dropouts and to promote high school graduation for all students. Systematic approaches may include supplemental services for at-risk students, alternative learning environments, and schoolwide restructuring efforts.

INTRODUCTION

Schools are now required under the *No Child Left Behind Act* to report annual graduation rates. With this in mind, schools are more concerned with making sure that students complete their high school education and are well-prepared for life.

Over the years, attention to the dropout issue has ebbed and flowed. One of the most widely cited education reports, *A Nation at Risk*, helped set the tone for educational reform in the United States by focusing on high school completion (National Committee on Excellence in Education, 1983). Policymakers responded by creating initiatives such as the School Dropout Demonstration Assistance Program, funded by the U.S. Department of Education from 1991 to 1996, that provided funds for dropout prevention programs across the country.

How Are Dropout Rates Measured?

Generally, dropout rates are measured in one of three ways:

- Event dropout rates are the proportion of youth ages 15–24 who dropped out of grades 10–12 in the preceding 12 months of the reporting period.
- Status dropout rates describe the proportion of 10th- to 12th-grade students who leave school each year without completing a high school program.
- High school completion rates measure the proportion of 18- to 24-year-old students who are not enrolled in high school but have completed a high school diploma or an equivalency such as the GED.

(Source: Bhanpuri & Reynolds, 2003)

More About the Breadth of the Dropout Problem

- More than 1,300 students drop out of school every day.
- Thirty percent of Hispanic youth are dropouts.
- Fourteen percent of African-American youth are dropouts.
- Eight percent of White youth are dropouts.
- From 41 to 46 percent of prisoners are dropouts.
- Dropouts make 42 percent less money in the workplace than high school graduates.
- Fifty percent of dropouts are unemployed.
- Dropouts are three times more likely than high school graduates to live in poverty and to rely on public assistance.

(Source: The Advertising Council, n.d.)

The importance of high school graduation is closely tied to the U.S. economy and the lack of good paying, unskilled jobs. These types of jobs are less available because of the increased use of technology and the outsourcing of unskilled jobs to foreign competitors. In the 21st century, a high school diploma is critical to an individual's ability to advance economically.

Research has shown that dropout rates differ among the various ethnic groups across the country. For example, in 2000, the status dropout rate for Asian/Pacific Islanders was 3.8 percent, the lowest among racial and ethnic groups. Hispanics had the highest status dropout rate at 27.8 percent, and the status dropout rate for African-Americans was 13.1 percent. The status dropout rate for Whites in 2000 was 6.9 percent (Kaufman, Alt, & Chapman, 2001).

The cost of school dropouts extends beyond the individual, to the society at large. Individually, dropouts experience serious economic and social consequences. Economically, dropouts remain a group characterized as low wage earners. On average, an individual without a high school diploma earns $21,314 a year, while an individual with a high school diploma earns approximately $30,000 a year (Doland, 2001). The 40-year earnings of school dropouts do not fare well in comparison with those who graduate. Over the same 40-year period, a school dropout will only earn $852,577, whereas a high school graduate will earn more than $1 million.

There are also social costs associated with dropping out of school, including reduced prospects of employment and higher-than-average rates of incarceration (Harlow, 2003; The Education Trust, 2003). Dropouts are more likely to be

arrested and incarcerated than high school graduates, and they represent more than 50 percent of the Federal prison population. The average cost to house a prisoner for 1 year is $25,000 (Palumbo & Hallett, 1993). Incarceration also results in lost wages and lost tax revenues from those wages.

KEY CHALLENGES

In light of the costs to both the individual and society, an important question to consider is what causes students to drop out of school? According to the research, both student- and school-related factors contribute to dropout (Rumberger, 2001). It is oftentimes the case that a combination of these factors influences students' decisions (Wells, 1990; Frymier & Gansneder, 1989).

Student-related factors

Research indicates that many student-related factors are associated with dropping out of school (Rumberger, 2001). They include such factors as low school performance, grade retention, absenteeism/truancy, behavior problems, and in the case of females, pregnancy (Jimerson, Anderson, & Whipple, 2002). Students' risks of dropping out can be predicted as early as the fourth grade based on such factors as academic performance, involvement in school activities, and attendance patterns. Early grade retention is also linked to subsequent school dropout. Each time a student is retained, the chances of that student eventually dropping out of school may increase.

Family background factors

Socioeconomic status and family background are two additional factors that may contribute to dropping out of school (Hale & Canter, 1998). Specific family characteristics such as family income, parental attitudes toward schooling, parents' educational levels, siblings' influences, and single parenting may be influential factors.

Adjustment factors

Researchers—including Rumberger (2001) and Berktold, Geis, and Kaufman (1998)—have cited additional underlying factors that may bring students to eventually leave school, such as social adjustment issues (e.g., not liking school or not getting along with teachers) and academic reasons (e.g., failing school). Student engagement with school is an additional adjustment factor. When students become disengaged from school, absences may increase and grades may plummet. Additionally, for immigrant students, limited English language skills may be an obstacle to participation in the school culture, making student engagement less likely. This, in turn, may fuel feelings of inadequacy and isolation, which can eventually lead to the decision to drop out of school.

School-related factors

School policies and practices play a key role in many students' decisions to dropout (Rumberger, 2001). Certain discipline policies, such as suspension and expulsion, are linked to school dropout. When students are suspended, they are essentially discharged or involuntarily withdrawn from school. Involuntary withdrawal in the form of school suspension is a school-related factor for dropout. Schools may also discharge students from schools because of chronic absenteeism.

School structure, resources, and student composition are several of the other school-related factors that impact dropout rates. According to a study by Balfanz and Legters (2004), a high school whose student body is primarily composed of minorities, is five times more likely to promote less than 50 percent of its freshmen to senior status in 3 years, particularly if the school is high poverty.

RESPONSES TO KEY CHALLENGES

There are numerous dropout prevention programs being used by school districts across the country. In fact, the National Dropout Prevention Center has identified more than 570 programs in its model programs database (see "Additional Resources" on page 60). These various approaches include supplemental services provided to students within the existing school structures; in an alternative school program, such as a school-within-a-school; or in a separate setting (Rumberger, 2001). There are also systemic approaches that seek to improve family, school, and community factors that may contribute to dropout behavior.

Supplemental services for at-risk students

One approach to dropout prevention is to provide opportunities for youth to participate in service learning and to learn social skills and strategies to increase their chances of success in school. These programs may take place during the school year as adjunct services, after school, or during the summer. They may be an important tool for at-risk youth to fill the gap time with focused and engaging activities.

Examples and research findings

The Quantum Opportunity Program (QOP) is classified as 1 of 20 successful programs for youth, as evaluated by the American Youth Policy Forum and based on measures of academic achievement, such as test scores, graduation rates, and enrollment and retention in postsecondary education (Jurich & Estes, 2000). The program provides counseling, educational services, life skills, and employment training for at-risk high school students from socioeconomically disadvantaged backgrounds (Stern & Wing, 2004). It also engages youth in year-round services during high school and

provides financial incentives for students who actively participate. The goal of this 4-year coordinated services program is to help disadvantaged youth make a quantum leap toward success. Components of the program are:

- Case management.
- Mentoring.
- Computer-assisted instruction.
- Work experience.
- Financial incentives.

Stern and Wing (2004) reported that in two independent evaluations of the program, high school completion rates were significantly higher in students randomly assigned to QOP intervention groups than to those in nonintervention control conditions. The more recent of the two evaluations demonstrated that QOP increased by 7 percentage points the likelihood that enrollees would graduate from high school with a diploma. It also increased the likelihood that students who dropped out of high school would attend GED classes. Yet, when these surveys were administered, 16 percent of program enrollees were still in high school, and further results were awaiting an additional follow-up survey (Maxfield, Schirm, & Rodriguez-Planas, 2003).

At the state level, Maryland's Tomorrow is a high school program designed to address the dropout problem. The primary goals of this program are to prevent school dropouts and to improve student performance on the Maryland Functional Test. Maryland's Tomorrow begins during the summer before ninth grade and continues to provide supplemental services through high school and the year following graduation. Program components include counseling and concentrated support; strong academic instruction throughout the year; career counseling; summer activities, including employment, workshops, and trips; mentors; personal skill development; and peer support.

Seventy-five Maryland's Tomorrow programs are conducted across the state and are held strictly accountable at the state level in the same manner as all high school programs. In 1995, 27 of the 75 programs were studied by Juris and Estes (2000). The evaluation indicated that students who participated in the program had higher graduation rates and improved performances on the Maryland Functional Test.

Supplemental services programs may take place apart from the school environment, as is the case with the Austin Youth River Watch Program (AYRWP). Students work in real-life circumstances by conducting river water monitoring activities and working with younger at-risk trainees after school 5 days a week. The goal is to reduce the potential for at-risk youth to drop out of school by having them interact with positive role models and work on environmental issues.

In an evaluation of the program's results (Jurich & Estes, 2000), students in the AYRWP were compared with students who were similarly at-risk. The AYRWP participants had higher GPAs and were more likely to advance to the next grade level than non-AYRWP students. The school district dropout rate was 8.8 percent for the evaluation period, and no AYRWP student dropped out.

The Coca-Cola Valued Youth Program uses cross-age peer tutoring as a means of reducing school dropout (Slavin & Fashola, 1998). The program pairs middle and high school aged tutors with elementary aged tutees. The tutors—the majority of whom are limited English proficient—receive training on how to tutor youngsters and receive stipends for their services. The aim of the program is to increase the tutors' self-concepts, academic skills, and tutoring skills. The emphasis on responsibility, self-awareness, and pride are also intended to counter such high-risk behaviors as truancy and disciplinary referrals. The program incorporates a home–school partnership as well.

The Coca Cola Valued Youth Program has been evaluated for its effectiveness in reducing school dropout (Cardenas et al., 1991, as cited in Slavin & Fashola, 1998). The evaluation was conducted in four schools in San Antonio, Texas, and compared 63 tutors from the Valued Youth Program with 70 matched control students. The majority of the students participating in the study were Hispanic with limited English proficiency. Two years after its implementation, the program was shown to be effective at reducing school dropout, increasing academic achievement, and improving students' self-concepts and attitudes.

Another study examining the effectiveness of a tutoring program was conducted by Somers and Piliawsky (2004). The study was conducted in an urban high school in the Midwest. The sample consisted of 96 ninth-grade students, and most of them were African-Americans from high-poverty families. The students were divided into an intervention group that received tutoring and a nonintervention control group. Tutors were 18- to 24-year-old university students. They were trained using the *Tutoring Handbook* produced by the University of Washington's Pipeline Project. Tutoring took place after school in designated school classrooms four afternoons per week for 30 weeks. Tutees also attended monthly enrichment programs designed to enhance academic self-esteem, self-efficacy, and motivation. The authors reported that although the program did not impact students' GPAs, it significantly reduced the dropout rate.

Alternative learning environments

Another approach to dropout prevention is an alternative school arrangement. This approach may vary in the following ways: instruction in smaller classes, accelerated curriculum pace, challenging curricula with a more interdisciplinary focus, or using competency-based curricula that allows students to move at their own pace.

Examples and research findings

Career Academies are based on a school-within-a-school program and typically target low performing students. Students enter academies in either grades 9 or 10 and continue through high school graduation. They take academic and vocational courses taught by a group of teachers dedicated to the academy. Thus, students enjoy collaboration among teachers and a warm and supportive school climate. Each academy has a specific career focus (e.g., media, business, technology, health). During their junior years, students are matched with mentors from local employers. After their junior years, students who are performing well enough to be on track for graduation are placed in summer or part-time, school-year jobs.

An evaluation of Junior Reserve Officers Training Corps career academies was conducted with 27,490 students from urban high schools in the United States (Elliot, Hanser, & Gilroy, 2001). The authors reported that graduation rates were significantly higher among students who attended career academies than they were among students from the same types of schools that did not use a career academy approach or among students from other comparable school types. In addition, students enrolled in career academies were more likely than their counterparts to graduate with a better than 2.00 final GPA (i.e., a C average).

Project COFFEE (Cooperative Federation for Education Experience), a comprehensive program for dropout prevention, was designed by the Cooperative Federation for Educational Experiences. This program emphasizes occupational and academic development. Occupational development relies heavily on simulated work experiences in one of five training areas: computer maintenance, word processing, horticulture/agriculture, distributive education, and building and grounds maintenance. Empirical data suggest that high school dropouts who attend Project COFFEE are more likely to be employed, compared with the national average employment rate (Stern, Finkelstein, Stone, Latting, & Dornsife, 1994). However, there is little evidence regarding the program's effectiveness to reduce dropout rates.

Schoolwide restructuring efforts

Systemic approaches such as schoolwide restructuring efforts and comprehensive school reform efforts have the potential to significantly reduce dropout rates by targeting environmental factors that may contribute to a student being at risk (Rumberger, 2001). However, this approach is also the most challenging to initiate and sustain because it requires sweeping changes to existing institutions.

Examples and research findings

Central Park East Secondary School (New York City) is one example of a successful schoolwide restructuring effort. This is a public high school that serves students in grades 9–12 from low-income families. Students who attend this school have a history of low academic achievement; however, there are no specific entry requirements, such as interviews or tests. The school is designed to provide a rigorous educational environment that concentrates on math, science, social studies, and humanities. The classes are organized into 2-hour blocks and average 20 students per class. Students are required to showcase their work for critiques and must complete seven academic projects across 2 years. They must also defend their projects to a committee of faculty, students, and other adults. School data show that 90 percent of the students go on to college and only 5 percent drop out. Attendance rates are high, and violence within the school is minimal.

CONSIDERATIONS

The risk factors and conditions that influence high school students to drop out of school are complex and intertwined (Rumberger, 1991). They extend beyond academic failure to include social problems and a lack of support and resources within the community. Additionally, there are disparities in resources and support for different ethnic and racial groups.

According to the Northwest Regional Educational Laboratory, (n.d. b), the following key characteristics may contribute to strong dropout prevention programs:

- An instructional focus that provides relevancy and can accommodate a range of learning styles.
- Practices for accountability and appropriate authentic assessment.
- Strong links to community and parental involvement.
- A school structure that includes autonomy and personalization.

Additional Resources

- **Hale, L. F., & Canter, A. (1998).** ***School dropout prevention: Information and strategies for educators.*** **Bethesda, MD: National Mental Health and Education Center.**

  This source focuses on risk factors, basic intervention and prevention strategies, and strategies for teachers to employ to help reduce dropouts.

- **National Dropout Prevention Center/ Network (http://www.dropoutprevention.org/ndpcdefault.htm)**

  This is a research center and resource network for practitioners, researchers, and policymakers to meet the needs of at-risk youth.

VIOLENCE: HIGH SCHOOL

Students want to attend high schools where they feel safe from violence and crime. However, physical fights and the use of weapons occur in some schools on a daily basis. To address this issue, high schools may choose from a variety of approaches, including the use of security and surveillance systems, behavior modification programs, whole-school programs and school–family and school–community partnerships. Although not all schools need the same intensity of intervention, effective approaches typically are schoolwide and comprehensive.

INTRODUCTION

Effective schools are also schools that are safe and less vulnerable to violence (Morrison, Furlong, & Morrison, 1994). Yet, high schools in the United States seem to struggle with problems of violence and crime more than schools with lower grades. In the 1999-2000 academic year, 71 percent of secondary schools reported a violent incident, compared with 20 percent of elementary schools, 56 percent of middle schools, and 51 percent of combined schools (DeVoe et al., 2003). The heightened risk for violent incidents in high schools involves several types of behaviors that are associated with physical injuries and student deaths, such as the use of weapons and involvement in gangs. Many at-risk high school students may already bring established aggressive habits and values with them from lower grades.

KEY CHALLENGES

Physical fights and weapons use

The Centers for Disease Control and Prevention (CDC) collected survey data on youth who participated in violent behavior or experienced violence by other youth. The CDC reports that 33 percent of students in grades 9–12 in U.S. schools had been in a physical fight one or more times during the 12 months preceding the survey, although only 12.8 percent of these incidents took place on school property. Approximately 9 percent of the students had been threatened or injured with a weapon on school property one or more times. In addition, 29.8 percent of students had their property (e.g., car, clothing, or books) stolen or deliberately damaged one or more times during the 12 months preceding the survey (Grunbaum et al., 2004).

Although data jointly reported by the National Center for Educational Statistics and the Bureau of Justice Statistics reveal that the general pattern of carrying weapons among high school students—both inside schools and in other places—is declining, concerns remain in this area.

These trends may vary by state and age group, leaving many students vulnerable to violence (Bennett-Harper et al., 2002). Yet, when examining the data on carrying a weapon on school property alone, the statistics show little fluctuations. In each year from 1993 to 2001, 7 to 9 percent of students reported being threatened or injured with a weapon, such as a gun, knife, or club, on school property (DeVoe et al., 2003).

Trends in Carrying Weapons, 1993–2001

- Students carrying weapons anywhere declined from 22 to 17 percent.
- Students carrying weapons at school declined from 12 to 6 percent.

(Source: DeVoe et al., 2003)

Youth gangs

Youth gang activity in schools is another type of problem behavior that is affecting school climate. Youth gangs are commonly thought of as a self-formed association of peers with a gang name and some sense of identity and an elevated level of involvement in delinquent or criminal activity. Based on results from the National Youth Gang Survey, estimates indicate that youth gangs were active in more than 2,300 cities with populations exceeding 2,500 in 2002, with gang activity notably more prevalent in the largest cities (i.e., with populations greater than 100,000). It is also estimated that more than 700,000 gang members and 21,500 gangs were active in the United States in 2002 (Egley & Major, 2004). Schools frequently have serious youth gang problems when they are located in urban low-income communities with high rates of school dropouts, weak family structures, crime, and unemployment (DeVoe et al., 2003).

In 2001, 20 percent of students reported that there were gangs at their schools. Students in urban schools were most likely to report the presence of street gangs at their schools, and Hispanic and African-American students were more likely than White students to report the existence of street gangs in their schools (DeVoe et al., 2003). The presence of gangs is a threat to all facets of the school environment, both as an immediate danger to school safety and as a risk-related sociological factor (Benda & Turney, 2002). For example, when at-risk youth begin to affiliate with gang members, these affiliations may lead to increased student participation in problem behaviors.

Educators are aware that it is difficult, if not impossible, to carry out the school mission and educate all students under conditions of threats of weapon use, gang intimidation, and violence. For example, in the 1999–2000 academic year, five states reported that more than 5 percent of 10th-graders had missed 1 day of school during the past 30 days because they felt unsafe on the way to school. Four states reported the same for 12th-graders.

Risk Factors for Gang Involvement

Psychological characteristics:

- Chronic family maladaptive patterns and/or family crises.
- Oppositional Defiant Disorder—defiant behavior at home and at school.
- Lack of social or emotional skills.

Environment and family factors:

- Lack of school or community support.
- Lack of opportunities for positive recreational activities.
- Negative influences from peers.
- Use of aggression as a defense against bullying, humiliation etc.

Attitudinal factors:

- Perception of acceptability—aggression is appropriate to reach personal goals.
- Perception of prevalence—aggression is a widely used response in certain situations.
- Perception of consequences—little or no harm to the individual will result from aggressive behavior.

Situational factors:

- Alcohol, tobacco, or drug use.
- Bystanders' encouragement to get into fights.

(Sources: Bandura, 2002; Benda & Turney, 2002; Morrison & D'Incau, 1997; Siegel & Scovill, 2000; Valois, MacDonald, Bretous, Fischer, & Drane, 2002; Webster, Gainer, & Champion, 1993)

Aggressive behavior

A number of risk factors contribute to aggressive behavior, which may result in adolescent engagement in violence. Intervention programs need to be adapted to the specific risk factors and to the needs of the school population. The risk factors may be grouped into four main categories: psychological characteristics, environment and family factors, attitudinal factors, and situational factors.

RESPONSES TO KEY CHALLENGES

A variety of approaches address the challenges described above. Each approach takes into account the risk factors and viable ways to minimize fights, the use of weapons, gang involvement, and aggressive behavior. Violence prevention programs may be aimed at providing increased surveillance in schools, educating staff on gang identification, modifying aggressive behavior patterns, and engaging peers in mentoring activities. Additionally, schools may adopt approaches that include school–family and school–community partnerships.

Surveillance and gang identification

High schools use a variety of approaches to increase school safety. One approach is using security and surveillance systems and procedures such as physical surveillance of entrances. Other approaches include enhancing staff knowledge of gang identification and management techniques and establishing clear policies and procedures (Gottfredson & Gottfredson, 2001).

Many educators and policymakers recommend that schools provide training on how to identify cases of students' making threats to use a weapon, to implement psychological assessment procedures and interviews with parents, to identify violence-prone students, to refer students for counseling, to install metal detectors, and to implement surveillance or security systems inside schools (O'Toole, 2000).

Although the use of security and surveillance systems and procedures has been recommended by the CDC, little systematic research has been conducted so far on its effectiveness (2001). However, it should be noted that not all students who carry weapons on school property show risk signs (e.g., are involved in violent incidents as victims or aggressors; use tobacco, alcohol, or other drugs; feel that school is unsafe; or are offended by someone at school) that would help identify them as potential perpetrators (Furlong, Bates, & Smith, 2001). In addition, these measures may be less effective in protecting students outside school grounds (e.g., on their way to school). This suggests that multiple prevention efforts need to be implemented to decrease the likelihood of violent incidents at schools.

Behavior modification programs

Behavior modification and social-skills training are other popular approaches to violence reduction. The behavioral approach is based on the notion that behavior is learned; thus, changing behavior involves learning new behaviors to provide alternative responses (Finch, Nelson, & Moss, 1993). Students can learn to adopt thoughts that will lead to responses that can steer them away from aggressive impulsive behaviors (Bandura, 1995; Planalp & Fitness, 1999).

Behavior modification programs may affect youth behavior both in and out of school, especially because most physical fights and many other types of violent behavior (e.g., dating violence) typically do not take place during school hours (Grunbaum et al., 2004). On the other hand, not all social skills training programs are effective in modifying behaviors of at-risk adolescents. This suggests that some adolescents who are frequently involved in

aggressive acts do not lack social skills (Cirillo et al., 1998). Offenders may make rational choices to be violent. Such choices generally have one of three goals: to gain compliance, to restore justice, or to assert and defend identities (Lockwood, 1997).

Examples and research findings

Project Peace for Schools is a skill-building program aimed at expanding students' abilities to think through solutions and to adopt positive behaviors to reduce school violence. The program includes, but is not limited to, the presentation of information about the scope of the problem and techniques to regulate emotions and thoughts that assist in building counter-aggressive responses in conflict situations. The program was evaluated using a sample of 157 high school students in Los Angeles (De Anda, 1999). All participants were pretested before the intervention began and posttested at the end of the study. Findings indicated an increase in preferences for nonviolent methods when dealing with potentially threatening situations and an increase in students' general senses of safety in peer interactions. There was also a significant reduction in violent confrontations on campus. However, these findings should be interpreted with caution because the study did not use a nonintervention control group.

Prevention programs based only on the presentation and discussion of the problem may have less of an impact on students' behaviors. The Warning Signs program, a joint effort among the American Psychological Association and MTV (Music Television), is one such example. In this program, 30-minute videos are shown to students in classrooms. In an effort to try to understand the causes of the aggressive incidents and what could have prevented them, the videos present school-related incidents of violence committed by peers and interviews with the perpetrators, their friends, and friends of the victims and witnesses. This is followed by a discussion among the students in the classroom with school counselors, social workers, school psychologists, or trained teachers. Warning Signs was evaluated in one urban, vocational, public high school in New York City (Schaefer-Schiumo & Ginsberg, 2003). Approximately 50, 11th-grade students completed a preintervention survey but only 35 completed the postintervention survey. Results did not indicate a significant program effect on the reduction of violent incidents among high school students, and a control group was not used, making the findings inconclusive.

The Scared Straight program is another example of an approach to affect students' attitudes and behaviors toward crime. The main rationale behind the program is that learning about the life of inmates in prison will deter adolescents from crime. In a systematic review of nine randomized evaluations, Scared Straight either did not affect or, in some cases, actually may have caused a small increase in subsequent criminal activity by program participants (Petrosino, Turpin-Petrosino, & Finckenauer, 2000). In general, test results of the program have been inconclusive.

Whole-school programs and school–family and school–community partnerships

Comprehensive violence prevention programs for high schools attempt to create a balance between inspection and discipline practices and efforts to promote a positive and supportive environment for all students (Gallagher & Satter, 1998). In these programs, schools may seek the involvement of parents and the police when students are caught in violent incidents. At the same time, schools may implement programs to encourage active peer involvement in reducing violence and crime. Students may serve as conflict mediators, tutors, teachers' assistants, and hall monitors. In addition, schools may provide counseling to students on various topics, including psychological help, legal advice, and skill building in specific areas.

Examples and research findings

Alternative to Suspension for Violent Behavior (ASVB) is a program that includes a school–family partnership component. When a student is suspended, he or she meets with the assistant principal, who describes the ASVB program and invites the family to enroll in it. In return, the student's suspension is, for example, reduced to half of the intended days. The family then completes a conflict resolution skills program.

An evaluation of the program was conducted in one public school in the western suburbs of Chicago. The sample consisted of 165 students who had a history of suspensions. These students were divided into a group that attended the ASVB program and a group that did not participate in the program. Students who completed the ASVB program were suspended less often and had a better index of disciplinary acts following the intervention than did students in the control group during the same academic year and the first semester of the following year (Breunlin, Cimmarusti, Bryant-Edwards, & Hetherington, 2002).

Functional Family Therapy (FFT) targets adolescents who are at risk of violence or delinquency. Sessions take place at home or in a clinic. The program is administered in collaboration with school personnel. Schools may choose to become an FFT-certified site or to have school personnel participate in informational workshops about the FFT intervention. The program consists of three phases aimed to enhance the perception that a positive change might occur, to develop behavioral patterns that are culturally appropriate and contextually sensitive, and to generalize these patterns to different situations.

Osher, Dwyer, & Jackson (2004) reviewed the published literature on FFT and concluded that the program has a positive impact on youth in a variety of settings and from a variety of ethnic backgrounds. Furthermore, the National

Institutes of Health (NIH) convened a State-of-the-Science Conference on Preventing Violence and Related Health-Risking Social Behaviors in Adolescents. Based on an evaluation of the research-based evidence, the panel concluded that the FFT program is effective at reducing violence and delinquency in adolescence. (National Institutes of Health, 2004).

The Youth Summits program was created in 1995 by Youth for Justice, a national violence prevention initiative sponsored by the U.S. Department of Justice through the Office of Juvenile Justice and Delinquency Prevention. The program brings together students from diverse backgrounds to present their ideas to policymakers and to get involved in solving the problems of youth violence. In many states, Youth Summits includes presummit activities for students and/or teachers, such as law-related education lessons, and assignments that focus on youth violence. In addition, during many summits, students develop action plans to prevent violence in their schools and communities. Follow-up activities may include service learning projects, school-based summits, and reports (Leiterman & Nessel, 1999).

The American Bar Association has regarded best practices of Youth Summits as ones that include youth involvement in the planning process, interactive activities, and discussion topics relevant to young peoples' lives and youth involvement with community members, such as those in the legislature and social service and legal professions (Leiterman & Nessel, 1999).

The West Virginia State Bar's Citizenship and Law-Related Education Committee and the Youth for Justice Program jointly sponsored three youth summits in 1999. High school students and teachers, probation officers, counselors, state legislators, and other representatives discussed youth violence problems. The summits ended with students from each high school meeting to discuss what action they could bring home with them.

In Illinois, Youth Summit programs combine in-class policy analysis with community service to address high school violence. More than 1,000 students and 20 high schools take part in the program each year. The in-class curriculum was prepared by the Constitutional Rights Foundation Chicago. In addition, students design and implement a service project in their schools to address one of the youth violence issues.

CONSIDERATIONS

Many high schools across the country face the challenge of reducing violence. The first step for addressing the problem of school violence is an evaluation of the prevalence of the problem. Educators may want to identify troubled students and to reach out to them with appropriate support. In addition, evaluating the scope of the problem may enable educators to think about the intensiveness and comprehensiveness of the intervention approach that they would like to implement. While not all schools need the same intensity of intervention, effective changes typically are systematic and comprehensive. More often than not, programs that focus on both students' environments and students' behavior modifications are more effective than intervention approaches that focus on the student alone (Wilson, Gottfredson, & Najaka, 2001).

In some cases, integrating multiple approaches may be needed to address both perpetrators and students who are adversely affected by violent incidents. After a program has been selected, an evaluation of its implementation and outcomes is needed. Educators should collect data on an ongoing basis to better understand the changes in students resulting from the program. Using multiple sources of information on students' behaviors will help to capture an accurate picture of the progress that has been made with respect to the program's goals.

Additional Resources

- **Osher, D., Dwyer, K., & Jackson, S. (2004). *Safe, supportive and successful schools: Step by step*. Longmont, CO: Sopris West Educational Services.**

  This resource book offers descriptions, data, and contact information for 30 programs. The information can be used by schools to match programs with individual school's needs.

- **The Collaborative for Academic, Social, and Emotional Learning (http://www.casel.org/home/index.php)**

  This organization's Web site provides resources for increased academic, social, and emotional learning to parents, schools, and communities.

- **U.S. Surgeon General. (2001). *Youth violence: A report of the surgeon general*. Washington DC. U.S. Department of Health and Human Services. Retrieved July 12, 2004, from http://www.mentalhealth.org/youthviolence/surgeongeneral/SG_Site/home.asp**

  This report reviews research on youth violence and lists preventative strategies.

ALCOHOL, TOBACCO, AND OTHER DRUGS: HIGH SCHOOL

Illicit drug use may be on the decline but high schools today still experience problems related to students' use of alcohol, tobacco, and other types of drugs. Students with limited academic success, a history of delinquent behaviors (e.g., truancy), and sexual activity may be at greatest risk for drug abuse. To counteract these at-risk behaviors, programs need to be in place to help at-risk students, those who already use drugs in a limited way, and those who are mired in drug abuse.

INTRODUCTION

2003 was a watershed year in terms of the reduction of drug use among youth. According to the Monitoring the Future (MTF) survey that tracks and measures short- and long-term drug use among 8th-, 10th-, and 12th graders, illicit drug use is on the decline. Similarly, students' perceptions of drugs are changing. The MTF study reported that students' understanding of the harmfulness of such illicit drugs as marijuana and ecstasy is increasing across the three grade levels (Johnston, O'Malley, Bachman, & Schulenberg, 2003).

Despite welcome and promising trends showing a decrease in some categories of illicit drugs, it still remains a major challenge for U.S. schools. Research also indicates some disturbing trends in drug use. For example, the MFT study indicated that OxyContin and Vicodin use increased among 8th-, 10th-, and 12th-graders. Furthermore, cigarettes and alcohol—two substances that are illegal for youth under 18 or 21—showed troubling trends. The rate of decline in cigarette use among 8th and 10th graders has slowed. Finally, in spite of a previous decline of alcohol use across the three grades levels in 2002, the survey results in 2003 indicated a decline only for 12th graders.

Young adolescents may begin their experimentation with substance abuse by using tobacco, marijuana, and alcohol. These drugs are often referred to as gateway drugs because they may serve as an entry point for other drug use (Gerstein & Green, 1993). For example, tobacco and alcohol may serve as gateway to smoking marijuana. Similarly, marijuana use may be a gateway to cocaine use.

KEY CHALLENGES

Research has shown that drug use by adolescents is not the result of any one factor, but rather a host of risk factors in the home, at school, and in the community (Schinke, Brounstein, & Gardner, 2002). These risk factors pose the first challenges to combating the use of illegal substances by adolescents. The second challenge associated with the use of alcohol, tobacco, and other drugs is the subsequent impact that it has on an individual's success, both personally and academically.

Risk factors

According to the National Center on Addiction and Substance Abuse (CASA) at Columbia University, home environments—in which parents abuse substances; demonstrate ineffective parenting styles, attachments, and nurturing; and show approval of drug use—increase the likelihood that young people will use drugs. School failure, shy or aggressive classroom behavior, and inadequate social coping skills are risk factors associated with the school environment. Other variables, such as having too much spending money, experiencing high stress, or feeling bored, may also increase the likelihood of substance abuse by adolescents (2003).

Warning Signs of Drug Use

- Unexplained deterioration in school or work performance.
- Change in attitude about school.
- Problems with or changes in social relationships and recreational activities, such as giving up activities that were once pleasurable.
- Increased secrecy about conversations, activities, and personal issues and space.
- New friends, new activities, and new clothing style.
- Increased expenditures.
- Evidence of drug-related paraphernalia, such as pipes, inhalants, eye drops to mask red eyes, and mouthwash and room deodorizers to mask scents of drug use.
- Missing prescription drugs.
- Signs of alcohol use may include odor of alcohol on breath, slurred speech, and staggering or stumbling walk.
- Signs of marijuana use may include red, blood-shot eyes; impaired motor skills; odor of marijuana on clothes; and a lethargic appearance.
- Signs of cocaine or methamphetamine use may include increased talkativeness, talking fast, sniffing, signs of having a cold, weight loss, anxiety and paranoia, moodiness, and irritability or frequent expressions of anger.

(Sources: American Academy of Pediatrics, n.d.; Bobby Benson Center, n.d.)

The communities in which young people reside may also serve as risk factors for substance use. Communities plagued by economic distress may be locations for increased drug availability to and drug by young people. Finally, the influence of peers who engage in substance abuse also places students at risk to use drugs. An adolescent may begin to experiment with drugs to fit in with (as a show of individuality) or out of (as a show of curiosity) a peer group (Gerstein & Green, 1993).

A report by CASA revealed that risk factors for boys and girls may be different (2003). Girls may be more vulnerable to inattentive parents and the unhealthy messages disseminated through the entertainment media.

Influence on academic success

The impact of substance abuse on students' success in high school cannot be underestimated. Studies show that substance use is closely linked to other high-risk behaviors, such as delinquency, sexual activity, lower academic performance, truancy, and school dropout (The National Center on Addiction and Substance Abuse at Columbia University, 2001a). Students who use drugs may engage in other high-risk behaviors that further put them at risk for academic failure.

Substance abuse is costly, not only in terms of students' academic potential but also in terms of the heavy financial toll it places on school systems. Substance abuse and addiction costs $41 billion dollars each year at the elementary and secondary levels. Costs go to specialized services related to special education, violence and injury, counseling, and truancy. Substance abuse, in short, may rob teens of their chances to reach their full potential in school.

To many educators, substance abuse in schools is not a surprise. Twenty-nine percent of high school students reported in 2001 that someone at school offered, bought, or sold drugs to them. In 1993, 24 percent of high school students reported that illegal drugs were available at school (DeVoe et al., 2003). Schools are challenged to acquire knowledge and information about effective programs aimed at drug prevention.

RESPONSES TO KEY CHALLENGES

According to the National Institute on Drug Abuse, prevention programs generally target risk and protective factors (2003). Protective factors are associated with reducing the potential for drug use and can occur across multiple settings of the home, school, and community. In the home, they include strong family bonds, active parental involvement, and clear rules of conduct. School and academic success are protective factors in the school environment. An adolescent's bond to a religious organization can serve as a protective factor in the community setting.

Generally, there are three types of prevention programs:

- Universal programs—designed for a general population.
- Selective programs—designed for groups at risk or subsets of the general population.
- Indicated programs—designed for individuals already experimenting with drugs.

School-based programs that target substance use and abuse in schools include a wide variety of approaches, such as social influence resistance strategies, social competence strategies, information dissemination, and school-based counseling (The National Center on Addiction and Substance Abuse at Columbia University, 2001a). Although these approaches establish the basis for school-based programming, many schools across the country have also adopted policies and practices aimed at substance use and abuse on school grounds. Some of the most prevalent and often controversial policies include zero-tolerance policies, drug testing, and locker searches.

Although prevalent, the evidence is unclear as to the effectiveness of some strategies. The social influence strategy, according to the research, shows promise in reducing substance use. This strategy targets influences in the students' life, such as peer groups, as a primary means of preventing substance use and incorporates resistance skills training and educational materials to correct students' perceptions about drug use among their peers. Studies report that the social influence strategy reduces tobacco, alcohol, and marijuana use by 30 to 50 percent (The National Center on Addiction and Substance Abuse at Columbia University, 2001a). These results, however, have not been shown on a long-term basis.

NIDA has identified three core elements of an effective research-based drug abuse prevention program: (a) careful organization and construction of a program to enhance its abilities to reach a targeted audience in a selected setting; (b) content composed of information, skills, development, methods, and services to deter drug use; and (c) the ability of a program to be adapted to and used in different settings. Additionally, the research-based programs recognized by NIDA have been developed as part of a research protocol that includes an intervention group and control groups matched by basic characteristics such as age, school grade level, community type, and socioeconomic status (2003).

Universal programs

Universal programs work with families and in a school setting to strengthen factors that reduce the potential for drug abuse by adolescents. These programs may teach communication skills, appropriate discipline styles, and family management skills for families. School-based universal programs may focus on peer relationships, self-

control, and skills that help students refuse offers for drugs (National Institute on Drug Abuse, 2003).

Examples and research findings

The Life Skills Training: Booster Program—an extension of the middle school Life Skills Training Program—is an example of a universal program. It targets a range of risk and protective factors such as teaching social and drug resistance skills. The high school booster program is designed to provide additional sessions beyond the initial 3 years. Extensive testing for more than 20 years indicates that this program reduces substance abuse by 50 to 87 percent, relative to students who did not participate in the program. The booster program also showed long-term prevention benefits beyond high school (National Institute on Drug Abuse, 2003).

Lions-Quest Skills for Adolescence is a commercially available, comprehensive positive development and drug prevention program for adolescents that is used in schools across the United States. The 40-session version of the program focuses on the following areas:

- Building self-esteem and personal responsibility.
- Communicating effectively.
- Making better decisions.
- Resisting social influences.
- Asserting rights.
- Increasing knowledge of drug use and its consequences.

Results after 1 year of participation in the program showed a decrease in the initiation of tobacco and marijuana use among all racial and ethnic groups studied. After 2 years, results indicated lower initiation and regular use of marijuana and lower rates of binge drinking for Hispanic students (National Institute on Drug Abuse, 2003).

Project ALERT Plus is an enhanced version of the middle school Project ALERT (National Institute on Drug Abuse, 2002). The program consists of 14 lessons that are geared toward reducing the regular use of substances among high school students. The high school component is being tested in 45 rural communities. The middle school program reported positive results; that is, decreases in initiation of smoking, alcohol use, and marijuana use among high- and low-risk youth from a variety of communities (National Institute on Drug Abuse, 2003).

The Strengthening Families Program for Parents and Youth works with youth and their parents in a seven-session training program. The sessions are conducted by families that participated in the program. Findings have indicated that program participation leads to increased resistance to peer pressure to use alcohol and to reduced instances of problem behaviors. In comparison with control groups, there was a positive effect of parents' management practices on their adolescents (National Institute on Drug Abuse, 2003).

Selective programs

Selective programs target at-risk groups or individuals within the general population who are at great risk. Children of parents who abuse drugs or are academically low achievers are examples of groups targeted by a selective program.

Examples and research findings

Athletes Training and Learning to Avoid Steroids (ATLAS) targets the use of steroids, alcohol, and other drugs and performance-enhancing supplements by male athletes in high school. The program consists of a 10-session curriculum that focuses on education and resistance skills with the purpose of countering such risk factors as negative peer pressure and media promotion of supplements (Schinke, Brounstein, & Gardner, 2002). The program is facilitated by peer leaders, who in conjunction with a coach facilitator, deliver the sessions to their teammates. Implementation of the program has occurred across all ethnic and socioeconomic groups in both rural and suburban locations.

ATLAS has been designated as an exemplary program by an expert panel based on evidence of its effectiveness, quality, educational significance, and replicability (U.S. Department of Education, 2001b). This rating resulted from an assessment of student athletes who were randomly selected and grouped into three sequential cohorts by year (1994, 1995, and 1996). After 1 year, the 1994 and 1995 cohorts were followed up, and all three of the cohorts were followed up after each athletic season. The ATLAS intervention group was made up of athletes from 15 high schools, and the control group was composed of athletes from 16 schools. In comparison with the control group, ATLAS participants showed reductions in new substance use, new anabolic steroid use, drinking and driving, and the use of performance enhancing supplements; greater resistance skills; and improved nutrition and exercise behaviors.

Project SUCCESS (Schools Using Coordinated Community Efforts to Strengthen Students) focuses on substance use in high-risk populations in alternative high school settings. The program has community-based linkages to systems of care, such as programs aimed at helping parents to understand substance abuse prevention. Project SUCCESS has been implemented in alternative school settings in different types of geographical locations with adolescents from diverse racial and ethnic backgrounds from ages 14 to 18.

Project SUCCESS has been designated as a model program by the Substance Abuse and Mental Health Services Administration based on evidence of its strengths, weaknesses, major components, and outcome findings (Schinke, Brounstein, & Gardner, 2002). This rating results from evaluation that involved 425 students enrolled in three schools. Classrooms were assigned to participate in a Project SUCCESS intervention group and a nonintervention control group.

Findings revealed that Project SUCCESS participants exhibited lower levels of substance use than students in the control group. Approximately 23 percent of Project SUCCESS participants refrained from using drugs, compared with 5 percent of students in the control group.

Indicated programs

Indicated programs focus on individuals who already use drugs. This type of program may take place in a variety of settings.

Examples and research findings

Project Toward No Drug Abuse (TND) targets high school students in both comprehensive and alternative high schools. The goal of the program is to prevent the transition from drug use to drug abuse. The 12-week curriculum focuses on helping teens to develop correct motivations and perceptions about drug use and abuse and to foster social and self-control skills and decisionmaking abilities (National Institute on Drug Abuse, 2003).

A review of three evaluation studies of Project TND in Southern California concluded that the program is effective at reducing the prevalence of problem behaviors in high school students (Sussman, Dent, & Stacy, 2002). All three studies randomly assigned students to program participation intervention groups and to nonintervention control groups in multiple high schools. In addition, the researchers suggested that, to be successful, Project TND should be led by a health educator.

SMART (Skills Mastery and Resistance Training) Moves is a substance abuse prevention program initially implemented in public housing projects in 1987 by the Boys & Girls Clubs of America (B&GCA). The program offers diverse services, such as the presence of caring adults; a safe haven for after-school activities; health and fitness activities; education on drug abuse and pregnancy; technology training; opportunities for community service; and violence and drug prevention initiatives. The American Youth Policy Forum reviewed youth programs for effectiveness according to each program's ability to make a difference in the lives of youth. According to their review, SMART Moves decreases drug activity and the use of crack cocaine among youth and increases parental involvement (American Youth Policy Forum, 1999).

CONSIDERATIONS

Schools, parents, and community members need to work together to prevent drug use among older adolescents. As these groups work collaboratively, they should be aware of the origins of drug abuse and the common elements found in research-based programs for prevention. This knowledge may be put into practice through a blend of approaches that seek to change school environments and student behaviors. Leaders should keep in mind that high-quality implementation of a program may produce better results. To implement a program effectively, the program should be integrated smoothly within the school setting and include strong support from staff and school leaders (Gottfredson & Gottfredson, 2001).

NIDA has developed a set of principles that may be used at the school and community levels to guide thinking, planning, and selecting a program. These principles incorporate the reduction of risk factors, an increase in academic and social competencies for adolescents, outreach to diverse populations with family participation, long-term prevention goals, effective training in program implementation, and cost-effectiveness (2003). Efforts to address the problem of teenage alcohol and drug abuse may be most valuable when the design and implementation of the program matches the needs of the community and its schools.

Additional Resources

- **Schinke, S,, Brounstein, P., & Gardner, S. (2002).** ***Science-based prevention programs and principles, 2002: Effective substance abuse and mental health programs for every community*** **(DHHS Pub. No. SMA 03-3764). Rockville, MD: Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration. Retrieved December 13, 2004, from http://www.modelprograms.samhsa.gov/pdfs/CSAPScienceReportFINAL.pdf**

  This report provides an overview of science-based substance abuse and mental health prevention programs.

- **U.S. Department of Education, Office of Special Educational Research and Improvement, Office of Reform Assistance and Dissemination. (2002).** ***Exemplary and promising: Safe, disciplined, and drug-free schools programs 2001.*** **Washington, DC: Author. Retrieved December 3, 2004, from http://www.ed.gov/admins/lead/safety/exemplary01/exemplary01.pdf**

  This publication provides descriptions and evidence for the efficacy of nine exemplary and 33 promising programs selected by an expert panel in 2001.

TRANSITION FROM HIGH SCHOOL TO A POSTSECONDARY SETTING

Transitioning successfully from high school to a productive postsecondary setting is just as important as the transition from middle school to high school. Counselors, parents, and communities can help students to acquire information about postsecondary educational options, specialized training options, and work options. A system of linkages that promotes shared responsibility for transition between educational institutions and business and community representatives, may facilitate this process for many students who might be less aware of the various options for postsecondary settings.

INTRODUCTION

The participation and performance of students in high school can influence their readiness and success in postsecondary education and careers. Failure to make a successful transition to a higher educational setting or to gainful employment can lead to economic and personal difficulties, leaving individuals unprepared to meet the demands of a global labor market (Brand, 1993). Secondary school educators and business leaders share a responsibility to ensure that programs are available to students that facilitate successful postschool outcomes.

KEY CHALLENGES

The *No Child Left Behind Act* places great emphasis on preparing students for successful postsecondary outcomes, including gainful and productive employment (The Education Trust, 2002). High schools provide important opportunities for students to acquire information about postsecondary options, to enhance their academic skills, and to understand linkages between secondary and postsecondary settings (Greene & Forster, 2003).

Awareness of postsecondary options

If students do not receive comprehensive information about postsecondary opportunities, they will be unable to make informed choices after high school graduation and may fare poorly in a knowledge-based market that demands high-level skills (The American Diploma Project, 2004). Students without current information may experience difficulties in either selecting an appropriate college or finding a job that is consistent with their interests and skills.

A recent report by the Institute for Higher Education Research at Stanford University confirms that high school students often have misconceptions about college. It finds that students without accurate information may not be adequately prepared for postsecondary coursework, may fail to take advantage of financial assistance, and can underestimate admission criteria and postsecondary transfer policies. First-generation college students are least likely to receive adequate information about college (Wimberly & Noeth, 2004).

For students who choose to enter the labor market directly, information received in high school can help them learn about the knowledge and skills required in specific jobs and careers. High school career and guidance counselors can provide vocational testing and counseling to students to ensure that the jobs being sought align with their interests and skills and the demands of the labor market. Without an awareness of the nature and expectations for performance in occupations and without a firm understanding of the employment opportunities available in specific fields or geographic areas, students will make inappropriate job choices that can lead to limited economic and career success (The American Diploma Project, 2004).

Academic skills and competencies

Many students are deficient in the kinds of academic skills necessary to be successful in either type of postsecondary setting. Factors such as disabilities, problems affecting a student's motivation to learn, and adverse sociocultural variables (e.g., poverty and gang involvement) may impact student learning. Therefore, researchers recommend authentic learning opportunities that provide students with meaningful content (Renzulli, Gentry, & Reis, 2004). Additionally, high schools may not offer students the kinds of challenging and cognitively demanding programs and curricula that facilitate achievement.

> **"High schools are in a prime position to share current and accurate information with students about the academic requirements of postsecondary education and jobs, the financial costs and rewards of postsecondary settings, and the expectations for performance that either a college or job setting demands."**
>
> **(Source: The American Diploma Project, 2004)**

If students graduate from high school ill-equipped to meet the academic challenges of postsecondary settings, then they may have to take remedial education classes. These students may feel overwhelmed, disappointed, or stigmatized that they are unsuccessful academically. Because of this, they may decide to leave their jobs and may remain under- or unemployed. For students in higher education settings, taking remedial classes may mean that they cannot take content-specific classes important for a degree, thus

lengthening the time needed to earn a degree and extending their financial burden.

Linkages between secondary and postsecondary settings

As linkages between secondary and postsecondary settings strengthen, the movement of students between these settings improves, and their ultimate academic and vocational successes can be heightened (The American Diploma Project, 2004). For instance, when transition programs focus on creating consistent policies and practices across secondary and postsecondary settings, such as programs related to high school testing and college admissions exams, students may have less difficulties assimilating into a postsecondary environment (Venezia, Kirst, & Antonio, 2003). However, in most states, the administrations of public higher education and public elementary and secondary education are separate bodies with few formal linkages (Cohen, 2001).

Structured transition programs between high schools and either higher education settings or jobs can help guide secondary educators in the types of curricula, programs, and systems that should be available to students. Having similar policies and practices across settings—related to topics such as scheduling, assignments, and social opportunities—can provide students with experiences that more closely replicate the experiences that they will likely encounter in a postsecondary setting. Having such similar experiences could enhance their opportunities for success (The American Diploma Project, 2004).

RESPONSES TO KEY CHALLENGES

High schools are in a prime position to implement policies and programs that facilitate the successful transition of students to postsecondary education or employment settings. Transition programs have gained impetus from Federal and/or state policies or legislation, such as the TRIO initiatives and the *School to Work Opportunities Act.* The TRIO program was designed to provide increased educational opportunities for youth from disadvantaged backgrounds, through outreach and support programs, to motivate and assist these students toward college completion. The *School to Work Opportunities Act* was a national level attempt to (a) spur states and localities to create partnerships among secondary schools, colleges, and local employers; and (b) address the lack of occupational information, institutional linkages, and inadequate academic skills that characterized a student's transition (Hughes, Bailey, & Mechur, 2001). Other programs are locally grown and developed by educators. Regardless of the impetus, transition programs can include components, such as the quality and training of personnel, allocation of personnel and fiscal resources, and community and parental involvement, that may enhance their impact on student success in postsecondary settings (The American Diploma Project, 2004).

Enhanced awareness of postsecondary options

High schools offer an array of programs to facilitate student awareness of postsecondary options. Services provided to students in high school guidance departments can include making available informational resources about postsecondary institutions and jobs, completing employment and admissions applications, facilitating visits by college and company recruiters, and maintaining postsecondary education and employment data.

Examples and research findings

Advancement Via Individual Determination (AVID) was designed to help promising students from low-income families undertake and succeed in a college preparatory program and ultimately enroll in college. Program participants enroll in college preparatory classes (e.g., math and science). AVID supports students in these classes by providing additional tutoring and study skills training.

AVID is identified as a model program by the U.S. Department of Education's GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) Initiative (Jurich & Estes, 2000). Descriptive statistics based on program evaluations reveal that high percentages of AVID participants enroll in college. An evaluation was conducted with 463 10th-grade students and 490 11th-grade students (Guthrie & Guthrie, 2000). Students whose program participation began in middle school were compared with students who participated in AVID only in high school. The study's authors reported that participation in AVID in middle school is associated with a significantly higher GPA and a greater likelihood of completing the course requirements for admission into a 4-year college. However, the overall benefit of high school AVID is difficult to interpret because the study did not include a separate control group of students who did not participate in AVID.

High school transition programs should ensure that students have high quality information about post school outcomes, incorporate high academic standards and expectations for student performance, and have explicit linkages between secondary and postsecondary education and employment settings.

(Source: Gati & Saka, 2001)

In conjunction with the American Youth Policy Forum, Jurich and Estes (2000) conducted an extensive review of programs for youth and concluded that 20 programs show evidence of success based on multiple measures of academic achievement (e.g., test scores, high school graduation rates,

and college enrollment and retention). These 20 examples were drawn from 95 youth initiatives included in two previous reports on youth programs. CollegeBound, Gateway to Higher Education, Upward Bound, High Schools that Work, and Tech Prep: TX were included in the study as successful programs; these programs are discussed later.

College access programs may support disadvantaged youth through services to help ensure that they graduate from high school and pursue a 4-year degree. CollegeBound is one program in which empirical evidence supports its effectiveness. The program was initiated by The General Electric Company to reform schools near its facilities. Implementation of CollegeBound typically includes college visits, presentations about postsecondary education to motivate students, in-school tutoring and homework assistance, financial aid, parent information sessions, individual college counseling, and SAT and ACT preparation courses. Jurich and Estes (2000) summarized an evaluation report of the program, noting increases in college enrollment following program participation. However, these findings should be interpreted with caution because the study did not use a nonintervention control group.

An in-depth, longitudinal study by the Center for Youth and Communities is currently underway. This study will analyze program experiences among students from the Class of 2005 and post-high school experiences of the Class of 2001 from six high schools. It seeks to learn which types of program experiences contribute most to college enrollment and retention.

Career Academies is another approach to enhance awareness of postsecondary options (Stern & Wing, 2004). There are variations to this approach but most academies have some common features.

- The school-within-a school concept focuses on a career area in which a cohort of students take classes together from 1 year to the next.
- Technical classes are combined with academic courses that meet college entrance requirements and focus on a theme.
- Partnerships with employers provide opportunities for internships and other experiences outside the classroom that focus on a theme.

In 1993, MDRC began a series of evaluations of career academies. The evaluations found that career academies provided some benefits to students, including more personal support, guidance on careers, and work experiences. The academies did show positive impacts on employment and earnings after high school; however, there were no significant positive or negative impacts on high school graduation or postsecondary education (Stern & Wing, 2004).

Upward Bound, a Federal TRIO program, was designed to increase opportunities for disadvantaged youth to attend college. In comparison with other TRIO initiatives (e.g., Educational Opportunities Centers, Student Support Services, and Talent Search), Upward Bound focuses intently on increasing opportunities in postsecondary education. Components of the program include tutoring, counseling, academic coursework, and an intensive college orientation program.

A research report on the short-term impact of the program noted that Upward Bound students took more high school credits and exhibited higher expectations for their postschool path than students who did not participate in the program (Jurich & Estes, 2000). However, researchers also learned that nearly 33 percent of Upward Bound students left the program after the first year. Another research synthesis of Upward Bound concluded that length of time in the program was an important indicator of student success (Slavin & Fashola, 1998). Upward Bound programs that included opportunities to gain work experience or workplace skills reported higher retention rates.

Other TRIO programs, such as Educational Opportunity Centers, Student Support Services, and Talent Search, work with low-income and first-generation college students to facilitate the success of students in postsecondary education settings. However, these interventions are provided to students once they are enrolled in postsecondary educational institutions and are not typically offered during a student's high school career.

Enhanced academic skills and postsecondary readiness

NCLB has provided school professionals the impetus to offer students curriculum and programs that are characterized by maintaining high expectations of performance and high standards of learning (Olson & Robelen, 2004).

Examples and research findings

For nearly 100 years, Boys & Girls Clubs of America has operated more than 2,000 facilities in all 50 states. Originally a U.S. Department of Health and Human Services initiative, B&GCA has become widely used to enhance the educational achievements of at-risk youth, particularly economically disadvantaged students. Trainers engage youth in discussions with adults, encourage family involvement, offer academic skill development in reading and writing, and require homework and community service. Jurich and Estes (2000) summarized an evaluation study that examined the program's impact on economically disadvantaged students who lived in public housing developments. Program participants were compared with students from affiliated facilities and from other communities, who did not participate in the program. Findings from this study revealed

positive outcomes for program participants on measures of reading, verbal skills, writing, and tutoring.

Strengthened linkages between secondary and postsecondary providers and settings

Programs that strengthen the relationship between high school and either postsecondary educational or vocational settings are characterized by strong communication and training across settings and a culture that engenders high expectations for all participants (Cohen, 2001).

Examples and research findings

The Gateway to Higher Education Program is a comprehensive 4-year secondary school program administered by the City University of New York. The program is based on high expectations for all students, a demanding curriculum, and a strong support system of dedicated personnel. The Gateway program includes an extended school day and year, with additional curriculum focused on math and science content. University personnel work closely with high school educators to orient high school students with postsecondary settings early in their secondary education career. They also accompany students on field trips to museums and other cultural venues and assist high school administrators and instructors with developing challenging curricula similar to a college setting.

An independent evaluation compared students who did and did not participate in the Gateway program. The researchers concluded that the Gateway program positively impacted student performance on state assessments, increased enrollment in rigorous academic courses, and resulted in higher graduation rates with subsequent matriculation in college (Jurich & Estes, 2000).

Tech-Prep: TX was initiated in the early 1990s as a national initiative designed to encourage high school graduates to enter postsecondary education. The program helps students obtain a 2-year degree or a certificate of achievement in a specific technical discipline, such as science, mechanical, industrial, agriculture, or another trade.

Components of the program have been reported to have a positive impact on helping students transition to postsecondary settings. Brown (2000) divided the entire high school population in the state of Texas in given years according to participation and nonparticipation in Tech-Prep. The author did not perform statistical tests but provided descriptive statistics of student data. The data reveal that students who participated in the program exhibited greater passing rates on the Texas state assessment test, had lower high school dropout rates, and graduated from high school at a greater rate (88 percent) than non-Tech-Prep students (82 percent). Longitudinal studies were also conducted to determine the program's long-term impact on student employment. Program participants were found to be working and pursing higher education at rates higher than nonparticipants (Jurich & Estes, 2000).

Programs also exist that attempt to fully integrate secondary and postsecondary education by providing opportunities for students to pursue both simultaneously. The Gates Foundation funds the Early College High School Initiative across the nation. In these small schools, students can earn college credits while receiving the support and teaching they need to be better prepared for the next steps of their lives (Vocational Training News, 2004). The program began in 2002 and is still in its early stages of implementation. Currently, 22 Early College High Schools enroll more than 4,000 students in 13 states (Lieberman, 2004). An evaluation of the impact and outcomes of participation in the Early College High School program is currently underway.

GEAR UP is a Federal discretionary grant program designed to increase the number of low-income students who are prepared for postsecondary education. GEAR UP provides 5-year grants to states and partnerships (local districts and organizations) to provide services at high-poverty middle and high schools. GEAR UP grantees provide services to an entire cohort of students, beginning no later than the seventh grade, and follow the cohort through high school. Components of GEAR UP programs provide information to students and parents and individualized academic and social support to students and encourage parent involvement in education, educational excellence, school reform, and student participation in rigorous courses. In 2003, Westat began an evaluation of the first 2 years of the GEAR UP program (Westat, 2003). However, because the evaluation was conducted so early in the implementation of the program, no impact data on whether participants attended or enrolled in postsecondary education institutions could be collected. Therefore, the findings from this research are primarily descriptive in nature and offer little insight regarding the initiative's effectiveness in facilitating successful postschool outcomes.

Components of Tech-Prep: TX

- Formal articulation between secondary and postsecondary schools.
- Secondary school combined with an apprenticeship program.
- Specialized curriculum.
- In-service training for teachers.
- Equal access to special populations.
- Integrated academic and occupational learning.

(Source: Jurich & Estes, 2000)

Comprehensive school reform models

There are a variety of CSR models that impact student transition to postsecondary settings. Some focus primarily on postschool outcomes and include career and vocational components as part of their models.

Examples and research findings

The importance of the high school experience in facilitating a student's transition to a postsecondary setting is the underlying tenet of the High Schools That Work (HSTW) model. Two components form the core of this model: an emphasis on both college preparation and vocational education for students in grades 9–12 and a collaborative educational delivery system that espouses high expectations for all students.

Hoke County High School in North Carolina—identified as a low performing school—was selected to participate in HSTW and is an example of how HSTW is implemented at the local level. Jurich & Estes (2000) summarized a case study report on this school. According to this report, educators at Hoke County High School revised their curriculum to ensure more rigorous content and strengthened teamwork between academic and vocational teachers. It also integrated funding through its Tech-Prep program. Developers indicated that teachers expressed higher expectations of student performances and postschool outcomes. Evaluation of student outcomes indicated that students' achievements in such content areas as algebra and geometry increased, compared with students who were not involved in the HSTW model (Jurich & Estes, 2000).

CONSIDERATIONS

The lack of preparedness of students exiting our nation's high schools is described by some as a crisis, calling for far reaching transformation of secondary education systems. Students have a variety of developmental, sociocultural, personal, and educational needs that must be met to support their participation and progress in postsecondary programs.

Strategies of Successful Programs

- High expectations for youth, staff, and the program.
- Personalized attention.
- Innovative structure and organization.
- Experiential learning.
- Long-term support.

(Source: Jurich & Estes, 2000)

In the effort to transform and improve our nation's secondary education transition programs, the Secretary's Commission on Achieving Necessary Skills—created in 1990 by the Secretary of the U.S. Department of Labor—reminds educators that enhancing the success and well-being of the country's youth is the underlying mission of these efforts. The commission's members expressed their thoughts in a letter to parents, employers, and educators, "We understand that schools do more than simply prepare people to make a living. They prepare people to live full lives—to participate in their communities, to raise families, and to enjoy the leisure that is the fruit of their labor. A solid education is its own reward" (The Secretary's Commission on Achieving Necessary Skills, 2000).

Additional Resources

- **Cohen, M. (2001). *Transforming the American high school: New directions for state and local policy.* Washington, DC: The Aspen Institute.**

  Developed out of concern for expanding learning options and future pathways for high school students, this report identifies key policy issues, change strategies, and future policy directions needed to create and sustain change.

- **American Youth Policy Forum. (2003). *Essentials of high school reform: New forms assessment and contextual teaching and learning.* Washington, DC: Author.**

  Published as a series of papers, this report focuses on strategies to increase academic preparation of high school students to increase postsecondary options.

- **The American Diploma Project. (2004). *Ready or not: Creating a high school diploma that counts.* (2004). Washington, DC: Author.**

  The goal of this paper is to suggest an agenda that would transform high schools into learning institutions that adequately prepare students to compete in a global economy.

Conclusions

Several themes emerge from this report's summary of challenges and responses to key issues in middle and high school education. First, there is a great need for more and better evidence regarding the effectiveness of various approaches to middle and high school improvement. The evidence of effectiveness for most approaches is inconclusive because of a lack of studies, flaws in the methodologies used in available studies, and mixed evaluation results. For example, readers may have been surprised at the small amount of evidence that exists concerning such practices as block scheduling or looping. It's also noteworthy that in numerous instances, caution is suggested when drawing conclusions from the positive evidence cited for a program, often because the study group lacked a comparison group. Overall, the sparse evidence available is mixed and sometimes negative, even for those few studies that used randomized controlled trials—the gold standard for judging program effectiveness.

Therefore, all of the evidence cited in this report should be considered suggestive, not definitive, and should certainly not serve as an endorsement of the profiled approaches. Furthermore, despite covering a wide range of issues that middle and high schools confront, this survey is far from exhaustive. For example, it does not report on effective approaches for teaching math or science. Fortunately, the What Works Clearinghouse (see text box) recently released studies on middle school math.

We look forward to the day in which we have much better evidence on the effectiveness of improvement programs. At the same time, we recognize that this report leaves policymakers and educators in a bind, for they must take action, even in the face of limited or mixed evidence. That said, we recommend that policymakers and educators always consider the *best available* evidence in making their decisions, even as they wait for better and more definitive answers to questions regarding "what works."

A second theme is that it takes more than programs to improve middle and high schools. It often takes changes in attitudes and relationships. For example, assuring effective literacy instruction in secondary schools is everyone's job, not just the work of English and language arts teachers. Similarly, engaging parents in the education of middle and high school children, as difficult as it may seem in some communities, can have a powerful impact on improved student outcomes.

What Works Clearinghouse

The U.S. Department of Education's Institute of Education Sciences created the What Works Clearinghouse (WWC) in 2002 to provide educators, policymakers, researchers, and the public with a central, trusted source of scientific evidence of what works in education. The Clearinghouse systematically searches for, evaluates, and reports on the evidence of effectiveness of programs, products, practices, and policies that claim to improve student outcomes.

Throughout the coming years, the WWC will review many topics of interest to middle and high school educators, including programs to raise mathematics and reading achievements and reduce dropout rates and delinquent, disorderly, and violent behavior. The WWC recently issued a series of reports on the effectiveness of middle school math curricula, which are available on its Web site: http://www.whatworks.ed.gov.

Even when a program can play a key role in the improvement effort, effective implementation is the key to its success. This is a consistent finding in the research literature but one that is often ignored in practice. Simply put, for programs to achieve positive outcomes for students, they must be chosen thoughtfully—keeping in mind local needs and contexts—and implemented willingly and faithfully. They must also be given time to succeed. The research evidence on program effectiveness indicates that achieving positive results—particularly at the level of schools and districts—often takes years. Some evidence indicates that the longer a program is in place, the more effective it is likely to become. In the future, improved evidence on the track record of programs will hopefully provide education decisionmakers with the confidence that they need to stay the course with proven programs, even if demonstrated results aren't seen right away. Finally, no one program can address all of the needs of most schools. Programs and approaches must be combined carefully to support locally developed improvement initiatives.

Lastly, improving middle and high schools requires systematic action and the full engagement of students, parents, schools, and communities. Comprehensive approaches are needed to improve transition from elementary to middle to high school, reduce high school dropout rates, and meet most other challenging issues. Given the limited evidence base for many middle and high school CSR models, this report explores only the initial contributions that CSR models can make to school and district improvement. Unfortunately, although many CSR service providers promise to provide schools with research-based, well-coordinated supports necessary for sustained improvement, educators will have to wait for more evidence on CSR models, particularly as studies currently underway begin to report on their effectiveness.

Whether a school or district adopts a model that offers a comprehensive package of practices or decides to build its own improvement effort from individual research-proven components, decisionmakers need reliable information to help them answer a central question: *Which models or approaches work well to raise student achievement or accomplish other important student outcomes?* Unfortunately, those most directly responsible for improving education—state officials, school board members, administrators, and teachers—and those concerned about its success—educators, parents, policymakers, and the public—have few resources at their disposal to answer this question. The CSRQ Center looks forward to issuing future reports on the effectiveness and quality of leading comprehensive school reform models, thereby providing new resources to help decisionmakers make important choices that will affect the lives of millions of students.