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ABSTRACT

This document consists of 39 ERIC Digests, which are two-page research syntheses written by each of the 16 Clearinghouses that form the Educational Resources Information Center (ERIC) System. The digests describe issues, exemplary programs and promising practices, and research results related to the National Education Goals, a framework for action originally adopted in 1990. The introductory digest, "Understanding the National Education Goals," describes where America currently stands in relation to achieving the Goals. Background information, such as why and how the Goals were developed and the federal government's new focus, is also covered. The next three digests describe the roles that librarians, teacher educators, and counselors (respectively) play in regard to supporting and accomplishing the Goals. The remaining digests are grouped into six sections that specifically address each Goal: Goal 1--Readiness for School; Goal 2--High School Completion; Goal 3--Student Achievement and Citizenship; Goal 4--Science and Mathematics; Goal 5--Adult Literacy and Lifelong Learning; and Goal 6--Safe, Disciplined, and Drug-Free Schools. (LMI)

Striving for Excellence:

The National Education Goals

Volume II

Educational Resources Information Center

EA

Striving for Excellence: The National Education Goals

Volume II

October 1993

Editor:
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Educational Resources Information Center (ERIC)
Washington, DC

INTRODUCTION

With the change of administration in our national government, educators and parents may be wondering about the status of the National Education Goals. The consensus is that President Clinton will continue to support the implementation of the Goals as they are currently defined. In the April 1993 issue of *Community Update*, published by the U.S. Department of Education, it is reported that Richard Riley, Secretary of Education, announced the proposal of "GOALS 2000: EDUCATE AMERICA Act" and the new focus that the Education Department will take to help schools and communities implement the National Education Goals. Through the GOALS 2000: Educate America Act, the Department will support states and local communities as they create strategies and reforms to improve their schools. These reforms may range from changes in teaching, learning, and parental and community involvement to school governance restructuring.

This second volume of *Striving for Excellence: The National Education Goals* consists of 39 ERIC Digests, which are two-page research syntheses written by each of the 16 Clearinghouses that form the Educational Resources Information Center (ERIC) System. The Digests describe issues, exemplary programs and promising practices, and research results related to the National Education Goals. They are meant to be a valuable addition to readers' collections of resources on practical applications of the Goals and relate a variety of possible responses to each one. This volume's introductory Digest, "Understanding the National Education Goals," will give readers a greater understanding of where America currently stands in relation to achieving the Goals. Background information, such as why and how the Goals were developed and the federal government's new focus, is also covered. After this introductory Digest, three Digests are presented that describe the role that librarians, teacher educators, and counselors (respectively) play in regard to supporting and accomplishing the Goals. The remaining Digests are grouped into six sections that specifically address each Goal.

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Understanding the National Education Goals

by Laurie E. Gronlund

How Were the National Education Goals Established?

The National Education Goals create clear, concise targets for educational improvement relevant to all Americans from early childhood through adulthood. The process of implementing these Goals has included three steps. In September 1989, then-President Bush and the 50 state governors held an Education Summit in Charlottesville, Virginia. The outcome was the creation of a framework for action called the National Education Goals. Adopted in 1990, the Goals state that by the year 2000:

- All children in America will start school ready to learn.
- The high school graduation rate will increase to at least 90 percent.
- American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter, including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.
- U. S. students will be first in the world in science and mathematics achievement.
- Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
- Every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

A bipartisan National Education Goals Panel of governors, senior national administration officials, and congressional representatives was created to monitor the Nation's progress towards the Goals and to report their findings annually to the American people. Lastly, the Panel proposed to establish a National Education Standards and Assessments Council to develop criteria for voluntary certification of national and state content and performance standards and assessment systems. The Council's final form and duties, however, are still being determined through deliberations in Congress.

Why National Educational Goals?

The purpose of establishing the Goals is twofold: first, to increase the achievement level of all students, and second, to provide equal opportunity education for all students. The decisions about what to teach our students have been, for the most part, based on standardized multiple-choice tests and mass-market textbooks. This approach has been criticized by many educators as focusing on low-level skills rather than on the ability to solve problems and actually apply learning to real-world situations. Setting goals and high, world-class standards on what students should know and be able to do will increase the expectations that educators have of their students and will let everyone know specifically what all students should be learning.

A Federal Commitment to the Goals

In May 1993, the **Goals 2000: Educate America Act**, backed by President Clinton and Secretary of Education Richard Riley, was sent to Congress. This bill acknowledges the rights of all children to an "opportunity to learn," to well-trained teachers, and to a solid curriculum. The bill's objectives include the following: (1) developing new state and local partnerships; (2) coordinating communication between states and communities; (3) expanding outreach in rural, suburban, and urban areas to encourage the forming of new coalitions; (4) improving the federal government's communication with communities through such means as the monthly Satellite Town Meeting, 1-800/USA-LEARN hotline, and regional conferences; and (5) increasing technical assistance to help individual communities locate the information and resources they need to help them achieve the Goals. Additionally, a GOALS 2000 Clearinghouse was created to assist communities seeking help with specific problems or issues. You may write to the GOALS 2000 Clearinghouse at the U.S. Department of Education, Room 2089, 400 Maryland Avenue SW, Washington, DC, 20202.

Where Does Our Nation Stand Now?

The *National Education Goals Report: Building A Nation of Learners, 1993* provides the most current information on where our nation's schools stand in regard to achieving the Goals and what progress has been made since the Goals were established. Some of the key findings reported in the *Goals Report, 1993* are summarized in this Digest. Also included are some of the findings from the *Goals Report, 1992* that were not updated in the *Goals Report, 1993*. To obtain a copy of the *Goals Report*, contact the National Education Goals Panel, 1850 M Street NW, Suite 270, Washington, DC 20036; 202/632-0952.

International Comparisons

International education comparisons can be as beneficial as international comparisons in other fields such as health or economics. By learning about the educational performance, teaching methods, and policies of others, we can gain insight into the level of performance we need to strive for and the types of education reforms that may help us (or not help us) to achieve higher performance. Among the international comparisons reported in the *Goals Report, 1992* are the following:

- *Lower Parent Expectations:* Parents in Minneapolis reported that they were very satisfied when their fifth-grade children performed at the 60th percentile compared to other children in their city. Parents in Taiwan and Japanese

cities reported that they were not very satisfied with their children unless they scored at or near the 80th percentile.

- *Lower Worker Expectations:* American workers were much less likely than West German and Japanese workers to report that they should be expected to think up better ways to do their job or anticipate a need to upgrade their current job skills.

- *Diminishing Lead in High School Completion Rates:* In the past, the United States consistently led other countries in high school and college completion rates. Currently, however, both Germany and Japan have higher secondary school completion rates for young adults, ages 25 to 34.

Status on the National Education Goals

The information below represents part of America's report card in relation to achieving the National Education Goals. The data represent only a small portion of the findings in the *Goals Reports* and were chosen because of their importance to educators and their relevance to the Goal's objectives. The National Center for Education Statistics is the original source from which the data were drawn.

Goal 1: Readiness for School

By the year 2000, all children in America will start school ready to learn.

Parent and Teacher Perceptions of School Readiness

- Both teachers and parents rated children's ability to communicate their needs, wants, and thoughts verbally and to approach new activities with enthusiasm as very important for school readiness. Teachers and parents disagree, however, on the importance of knowing the alphabet and counting to 20, with 58 to 59 percent of the parents believing these abilities to be important and only 7 to 10 percent of the teachers stating that these skills are important for children to possess before entering kindergarten.

Preschool Program Enrollments

- Preschool enrollment almost doubled between 1973 and 1992; however, for 3- to 5-year old children from low-income families the enrollment rate in 1992 was only 27 percent, compared to 34 percent of children from middle-income families, and 55 percent of children from high-income families.

- In 1993, 56 percent of all 3- to 5-year old children with disabilities were enrolled in preschool; however, this percentage dropped to 51 percent for children with disabilities whose family incomes were $30,000 or less.

Family Involvement with Children

- Of all 3- to 5-year old children in 1993, nearly nine out of ten children (88 percent) were involved in chores or brought along on errands by their parents or family members in the previous month, while only 42 percent were taken to a play, concert, live show, art gallery, museum, historical site, zoo, or aquarium, and only 38 percent were taken to a library one or more times in the previous month.

Child Health and Nutrition

- In 1993, 87 percent of all preschool-aged children had visited a doctor in the last year for routine health care; about half (52 percent) visited a dentist.

- In 1986, 99 percent of all preschool children received the minimum recommended dietary allowance (RDA) of protein in their diets. However, only eight out of ten received the minimum RDA of vitamins A and C, only half received the minimum RDA of calcium, and only one-fourth received the minimum RDA of iron.

Goal 2: High School Completion

By the year 2000, the high school graduation rate will increase to at least 90 percent.

Dropout Rates

- In 1992, the percentage of young people between 16 and 24 without a high school diploma was 29 percent for Hispanic youth, 14 percent for African American youth, and 8 percent for White youth.

- High school completion rates improved between 1975 and 1992 for African American students by 10 percent and for White students by 5 percent; Hispanic students, unfortunately, consistently have completion rates much lower than other groups and actually dropped by 1 percent between 1975 and 1992. The improvement among African American and White students was made in the early 1980s and has remained steady since then.

Reasons for Dropping Out

- The primary reasons cited by dropouts in 1992 for leaving school were (1) not liking school, (2) failing school, and (3) feeling unable to keep up with schoolwork.

Dropouts Who Returned to High School

- Almost half (48 percent) of the 1980 sophomores who dropped out of school returned and completed high school by 1986.

Reasons for Returning to High School

- In 1990, dropouts who reported that they were somewhat or very likely to return to school stated that they would return if they were (1) sure that they could obtain a good job after graduation and (2) certain of graduation. Almost 50 percent of these dropouts reported that they would return if they could attend night or weekend classes or if they could get tutoring.

Goal 3: Student Achievement and Citizenship

By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter, including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

Competency in Math and Reading

- Between 1990 and 1992, the percentage of twelfth-graders who met the Goals Panel's performance standard in mathematics increased slightly across all ethnic groups.
- In 1992, 18 percent of all fourth-graders, 25 percent of all eighth-graders, and 16 percent of all twelfth-graders had met the Goals Panel's performance standards in mathematics.
- The percentage of students meeting the Goals Panel's standards in reading, in 1992, was 25 percent of all fourth-graders, 28 percent of all eighth-graders, and 37 percent of all twelfth-graders.

Trends in Science Achievement

- Between 1970 and 1990, fourth-grade students' average score of proficiency in science remained at Level 200—the understanding of simple scientific principles; however, their average score did increase by nine points.
- Eighth-grade students' average score of proficiency in science between 1970 and 1990 increased from Level 200 to Level 250—the ability to apply basic scientific information.
- Twelfth-grade students' average score of proficiency in science between 1970 and 1990 remained at Level 250.

Advanced Placement Results in the Core Subjects of English, Mathematics, Science, and History

- The number of students taking the Advanced Placement examinations in the core subjects between 1986 and 1992 increased by 63 percent, with the highest rate of increase among minority groups.
- Of those eleventh- and twelfth-graders who took the advanced placement examinations in 1993 (85 out of every 1000 eleventh- and twelfth-graders) almost two-thirds scored high enough to make them eligible for college credit.

Civics Education

- In 1988, 99 percent of all twelfth-graders understood the basics of civics, such as elections, laws, and constitutional rights. Only 49 percent understood the specific government structures and functions, and only 6 percent understood the structures within the different branches of government, such as the Cabinet and the judiciary.

Community Service

- In 1992, only 44 percent of all twelfth-graders reported that they had performed community service during the past two years. Of those students performing community service, there were more female than male students, more Asian students than students of other ethnic groups, and more Catholic high school students than public or other private high school students.

Goal 4: Science and Mathematics

By the year 2000, U.S. students will be first in the world in science and mathematics achievement.

Instructional Practices

- In 1990, of all the eighth-grade science teachers surveyed about their weekly class activities, only 62 percent reported that they did science experiments, 10 percent used computers, and 14 percent assigned oral or written reports. Only about half (56 percent) of the teachers felt that their laboratory science facilities were adequate, 56 percent felt that they were well-supplied with instructional materials, and 46 percent did not base what they taught their students on textbooks.
- Of the eighth-grade math teachers surveyed in 1992 about their weekly class activities, 51 percent had their students work in small groups, 49 percent place a strong emphases on developing the ability to solve unique problems, and 56 percent report that their students use calculators in their class at least once a week.

Student Attitudes Toward Science and Math

- The number of fourth-grade students reporting that they like math and science is much greater than the number of eighth- and twelfth-grade students. The decline in attitude towards math is greater between the fourth- and twelfth-grade girls' attitudes than between the fourth- and twelfth-grade boys' attitudes.
- The percentages of girls responding with "yes" to the question, "Do you like science?" were 78 percent of the fourth-grade girls, 64 percent of the eighth-grade girls, and 57 percent of the twelfth-grade girls.
- The percentages of boys responding with "yes" to the question, "Do you like science?" were 81 percent of the fourth-grade boys, 72 percent of eighth-grade boys, and 74 percent of the twelfth-grade boys.
- In 1992, the percentages of girls responding with "agree" or "strongly agree" to the statement, "I like math" were 71 percent of the fourth-grade girls, 55 percent of the eighth-grade girls, and 49 percent of the twelfth-grade girls.
- The percentages of boys responding with "agree" or "strongly agree" to the statement, "I like math" were 71 percent of the fourth-grade boys, 59 percent of the eighth-grade boys, and 53 percent of the twelfth-grade boys.

Goal 5: Adult Literacy and Lifelong Learning

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Adult Literacy

- Based on 1992 test results of adult literacy, almost half of all American adults do not perform at the level of literacy considered by the National Education Goals Panel to be important for competing successfully in a global economy and for exercising the rights and responsibilities of citizenship.

Participation in Adult Education and Worker Training

- During the 1990–91 school year, about one-third (34 percent) of all adults were enrolled in adult education courses (this does not include adults enrolled in full-time programs). The largest percentage of these adults were between 17 and 34 years old, with the 35 to 54 age range a close second.

- The percentage of workers participating in training to improve their current job skills rose from 35 percent in 1983 to 41 percent in 1991.

Barriers to Adult Education

- Almost two-thirds of the adults surveyed believed that barriers kept them from participating in adult education during the 1990–91 school year.

- The most frequently cited barrier to education for these adults was their work schedule (33 percent), with class cost (28 percent) and class times (26 percent) close behind. Other reasons for not participating in adult education included class location (17 percent), lack of child care (15 percent), lack of information (15 percent), and no classes of interest (14 percent).

Goal 6: Safe, Disciplined, and Drug-Free Schools

By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

Student Attitudes and Drug Use

- The use of alcohol and other drugs by twelfth-grade students has decreased. In 1980, 72 percent of the twelfth-graders reported that they had used alcohol in the past month; while in 1991, 54 percent of the twelfth-grade students reported use of alcohol and other drugs in the prior month.

- In 1992, the percentages of students disapproving of adults having five or more drinks in a row once or twice each weekend were 84 percent of eighth-grade students, 78 percent of tenth-grade students, and 71 percent of twelfth-grade students.

- The percentages of students reporting in 1992 that they had had five or more drinks in a row during the previous two weeks were 13 percent of eighth-grade students, 21 percent of tenth-grade students, and 28 percent of twelfth-grade students.

- In 1992, the percentages of students reporting marijuana use in the previous month were 7 percent of eighth-grade students, 15 percent of tenth-grade students, and 22 percent of twelfth-grade students; self-reported cocaine use was 2 percent of eighth- and tenth-graders and 3 percent of twelfth-grade students.

School Discipline and Security

- Of the high school teachers surveyed in 1991, 68 percent felt that they had substantial or complete disciplinary control over the students in their classroom, a slight increase from 67 percent in 1988.

- Between 1990 and 1992, there was a decrease in the number of twelfth-graders reporting that their property had been stolen.

Conclusion

The goods news found in this third annual *Goals Report, 1993* is a slight decline in student victimization and use of alcohol and other drugs among twelfth-graders and an increase in mathematics and science achievement. In other areas, however, the *Report* shows a stagnation or movement in the wrong direction, such as in the high school completion rate and adult literacy. Additionally, there are significant "achievement gaps" and differences in student, parental, and worker attitudes between our country and other industrialized nations.

Overall, the *Goals Report, 1993* continues to illuminate how far our nation is from reaching the Goals. A positive result of knowing about our nation's education problems, however, is that this awareness should further motivate and challenge us to institute the changes necessary to remain among the world's leaders in education. Educators and parents tolerance for mediocrity will be diminished and a commitment to education reform will be strengthened.

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Libraries for the National Education Goals

by Mary Alice Brennan

By the year 2000, it is envisioned that our nation will have accomplished the six National Education Goals adopted in 1990 by the President and the governors of the U. S. Since libraries are the only educational system available to everyone, regardless of age or affiliation, it is logical to turn to our nation's libraries to help to achieve these goals.

To demonstrate the critical role libraries can and do play in support of the national education initiatives, an extensive literature review and analysis was undertaken (Stripling, 1992). This Digest highlights the findings of that review.

Goal One: By the year 2000, all children in America will start school ready to learn.

Experts predict that fifty percent of a child's intellectual development occurs before the age of four. If this is true, then it is crucial that preschoolers receive high quality care. Both public and school libraries provide activities, services, and materials to facilitate early language acquisition and reading readiness in preschoolers.

Highlights:

- The Pittsburgh Public Library's Beginning with Books project reached disadvantaged families in places around the community. They began by distributing packets to preschoolers in health clinic waiting rooms, and later expanded to social services centers, shelters, housing developments, and day care centers.
- The Foster Reading Center was set up by the Evanston (Illinois) Public Library and community leaders to provide reading/learning centers in the neighborhoods. Its Roving Reader Project sends readers to day care centers twice a week to share stories and enthusiasm for reading.

Goal Two: By the year 2000, the high school graduation rate will increase to at least 90 percent.

School and public libraries are joining together to offer special programs for students who are most at risk of dropping out before graduation. In addition to literacy programs, libraries are offering programs that address self-esteem and ethnic pride, motivation, thinking and study skills, and development of interests.

Highlights:

- The Reuben McMillan Free Library Association (Youngstown, Ohio) conducts programs on ethnic heritage for at-risk and minority students. Programs have featured African American writers, Hispanic crafts, and other topics. Students continue to visit the library after attending special programs.
- The Rantoul (Illinois) Public Library's at-risk program offers volunteer tutoring during students' study halls, educational seminars and workshops, field trips to businesses, and pre-employment experiences at local businesses.

Goal Three: By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

With the quantity of information doubling every few years, students cannot be expected to memorize all the facts about a given subject. Instead, students must develop their ability to think and to learn independently. School libraries can be instrumental in teaching students how to find and process information using technology as a tool. By providing equitable access to information, libraries can help students to make responsible decisions and to become productive citizens.

Highlights:

- Research shows that students perform better on tests of research skills and comprehension skills when they have access to a good library media center and a professional library media specialist.
- In Hinsdale, Illinois, school and public libraries jointly published a student literary magazine. The program resulted in increased student self-confidence, improved reading skills, more creative and better organized thinking, and greater ability to express thoughts and feelings through writing.

Goal Four: By the year 2000, U.S. students will be the first in the world in science and mathematics achievement.

Libraries play a unique role in bridging the gaps between disciplines, and, more specifically, in helping students apply science and mathematics concepts to other disciplines. Science curricula can be enriched in library media centers by providing hands-on displays and learning centers, electronic databases that contain the latest scientific information, guest speakers and demonstrations, and displays of student-produced science projects.

Highlights:

- The Monroe County Public Library (Stroudsburg, Pennsylvania), has a science awareness program for children. Volunteers demonstrate natural and scientific phenomena at special presentations, and resources in science and technology are distributed to teachers.

- Students use the school library media center to access electronic bulletin boards and databases available on national networks. NASA Spacelink, for example, provides current information and teaching guides on topics about space.

Goal Five: By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

It is estimated that there are 23 million illiterate and 35 million semi-literate adults in America. Many of these people are removed from an established educational system, and for these people, the library is the only educational institution available. Libraries are responding by providing services and materials to help American citizens gain literacy and become lifelong learners. Library literacy programs frequently target such special audiences as young adults, disabled people, institutionalized people, and people with limited English proficiency.

Highlights:

- The Brooklyn Public Library operates five adult learning centers that feature tutoring and tutor training; computer-assisted learning; English as a Second Language classes; collections of high-interest, low-vocabulary books; reference books for literacy professionals; and study tables on citizenship, job-seeking, and other adult interests.

- The Colorado Alliance of Research Libraries (CARL) online catalog system is located in many libraries and is also accessible to learners at homes and schools by modem. In addition to library holdings, the system gives access to economic information, local databases, other computer networks, and electronic mail.

Goal Six: By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

Before learning can take place, students must feel intellectually, physically, and emotionally safe. Libraries provide intellectual and emotional safety for children by offering information and services that children can turn to when seeking answers to their concerns. Information about drug abuse and social violence is accessible in school libraries, and the library's safe environment allows students to work independently, thereby bolstering students' self-esteem. In the same way, public libraries provide community members with safe learning environments.

Highlights:

- The Geauga West Branch of the Geauga County Public Library (Chesterland, Ohio), has a latchkey program that provides youth programming and help with school assignments while functioning as a safe social interaction center.

- Project LEAD (Librarians and Educators Against Drugs) of the Summit (Illinois) Public Library promotes drug awareness among elementary students by hosting a community awareness day, distributing information, and arranging visits by anti-drug speakers to the schools.

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ERIC Clearinghouse on Teaching and Teacher Education

Making the Grade: Teacher Education's Role in Achieving the National Education Goals

by Elizabeth Foxwell

Background

The 1989 Charlottesville Education Summit of the nation's governors resulted in the National Education Goals, which describe six priorities for public schools to achieve by the year 2000. Educators across the country supported the Goals' high aims, yet also expressed reservations (*Voices*, 1991). As originally written, the Goals did not include a distinct role for higher education nor did they acknowledge the importance of teachers to their success.

Policymakers have begun to address the omission by proposing an additional Goal that calls for teachers to "have access to programs for the continued improvement of their professional skills and the opportunity to acquire such knowledge and skills needed to instruct and prepare all American students for the next century," by the year 2000 (Taylor, 1993). This Digest highlights initiatives taken by the teacher education community in support of achieving the Goals.

What are the Implications for Teacher Education?

Colleges of education recognize that new, collaborative methods are needed to enable teachers to reach the students of tomorrow and ensure every child's success (Guy, in press). Organizations such as the National Board for Professional Teaching Standards and the Holmes Group, among others, are working to design standards to ensure comprehensive, quality teaching.

Former Office of Educational Research and Improvement Assistant Secretary Christopher T. Cross observed, "For student learning to improve, teacher learning must also improve" (Cross, 1991). The State Higher Education Executive Officers Association (SHEEO) has called for funding professional development programs for teachers at the college level, conducting teacher education in clinical settings, and improving the provision of professional enrichment programs (SHEEO, 1991). Release time for teachers' professional development and universal recognition of teaching as a genuine profession could also contribute to successful attainment of the Goals.

How is Teacher Education Responding?

Higher education institutions have shaped the original six Goals into programs that can help prospective teachers and their future students. In a 1992 survey, over 90% of more than 600 private colleges and universities were conducting eight or more programs related to the National Education Goals (Report, 1993).

The American Association of Colleges for Teacher Education (AACTE) recast the Goals to reflect the involvement of teacher educators by adding strategies for learning to accompany each Goal (AACTE, 1992, p. 13):

Goal One: Readiness for School
Strategy—All schools will be ready for children.

Goal Two: High School Completion
Strategy—Schools and teachers will receive necessary support to engage all children in learning, including development of special programs for those most at risk.

Goal Three: Student Achievement and Citizenship
Strategy—Teachers will be proficient in the subjects they teach and the pedagogues to teach them. They will be skilled in the use of assessment to diagnose the strengths and weaknesses of individual learners.

Goal Four: Science and Mathematics
Strategy—U.S. citizens will be first in the world in thinking skills and problem solving.

Goal Five: Adult Literacy and Lifelong Learning
Strategy—Schools and businesses will join together to enhance workers' abilities, both in the classroom and beyond.

Goal Six: Safe, Disciplined, and Drug-free Schools
Strategy—All children will be guaranteed a safe learning environment. To that end, every child in America will be taught by a fully qualified, licensed, professional teacher.

Are New Approaches Being Tried?

Teacher educators must prepare qualified teachers for a new kind of classroom. Following are descriptions of projects undertaken by schools, colleges, and departments of education to meet the National Education Goals (AACTE, 1992).

Goal One: Colleges of education are fostering early literacy, developing collaborative services, providing intervention programs, and building teachers' skills in working with children from disadvantaged families.

Peabody College, Vanderbilt University, sponsors a therapeutic preschool classroom for abused or neglected children, including individualized instruction emphasizing school readiness skills.

A mental health professional provides the children with daily counseling. Peabody College also administers the Tennessee Outreach Training Project, which offers information to programs serving young children with disabilities on best practices.

The Department of Teacher Education at Bradley University (IL) helps operate a program where at-risk children attend preschool four days per week. On the fifth day, teachers receive inservice training at the university or conduct home visits. Classrooms serve as field sites for early childhood education majors and for teachers requiring inservice training.

Goal Two: Teacher educators have established linkages with secondary schools and other partners, enabling academically troubled high school students to attend college or vocational programs and exposing teacher education students to experiences that will arise in their classrooms.

To help rural disadvantaged students, the College of Education at Eastern Kentucky University provides tutorials to at-risk 9th- and 10th-grade students to build math, language arts, and study skills. Marian College (WI) sponsors a mentoring program where education students work with elementary-grade students having problems.

Goal Three: Teacher educators have initiated programs to build skills in multicultural areas and in rigorous academic subjects so that new teachers can challenge their students to reach their potential.

Northeastern State University started a pilot program to aid in the transition of at-risk students from rural schools into middle schools. Courses in the Education Department at the College of St. Elizabeth emphasize living and teaching in a pluralistic society and feature preservice opportunities to work with children of diverse backgrounds. Florida State University's College of Education developed new strategies to prepare teachers of children with limited proficiency in English.

Goal Four: Teacher educators have established partnerships with businesses, schools, and representatives from other academic disciplines to help foster student interest in science and mathematics from a very young age. Increasing the number of women and people of color entering mathematics and science careers is also a priority. Efforts include improving teachers' skills in the use of technology in the classroom, linking them with industry, and designing inservice programs to strengthen their math and science knowledge.

Since 1976, Wesleyan College (GA), has sponsored "Expanding Your Horizons in Science and Mathematics" conferences for middle and high school girls and runs a science and mathematics summer camp for middle school girls.

The Dayton Science Project of the University of Dayton's College of Education (OH) links public schools, professional associations, a museum, software publishers, research institutes, and local industry to redesign the K–12 science curriculum; develop a communications technology network between science and math teachers and students, industry leaders, and government staff; and create science content and pedagogy workshops for teachers.

Goal Five: Higher education institutions have moved into the workplace and other community areas to promote literacy and lifelong learning. Projects include tutoring programs that pair prospective teachers with elementary students and on-site classes for workers featuring computer technology.

The University of Miami Student Literacy Project includes undergraduate education majors who tutor at-risk elementary school students. A program to improve the literacy skills of Sara Lee employees is operating with a partnership among North Carolina State University-Raleigh, the U.S. Department of Education, the corporation, and Forsyth Community College. Basic and job-related skills are emphasized in an in-plant instructional program; employees are granted release time to attend classes. A supervised learning lab is computer equipped.

Goal Six: Colleges of education are trying to provide teachers with the skills to deal with the social problems they face in the classroom. Drug awareness programs, counseling skills, and resources are a few of the services offered in partnership with parents, administrators, and others.

Junior and senior education undergraduates at the University of West Florida participated in three pilot modules on drug prevention—classifications of drugs and ways to identify users; drug use history; and problems in monitoring school policy and introducing drug prevention education into the curriculum.

Conclusion

Achieving the National Education Goals will depend on teachers' abilities to meet great challenges, devise and use effective learning strategies, and work with many partners to enable all children to meet their full potential. Teacher educators are working to provide their students with the necessary skills to meet the demands of tomorrow's classrooms.

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ED 358 069

Striving for Excellence: Counselor Strategies for Contributing to the National Education Goals

by Jeanne C. Bleuer and Garry R. Walz

Achievement of the six National Education Goals adopted by President Bush and the nation's governors will require changes in our present educational system, change in how our communities respond to education, and especially change on how education is visualized. More than anything else it requires a new level of collaboration by significant individuals and groups and a full commitment by the community. What is needed is "...an education revolution," a basic change in how education is envisaged and the manner in which it is delivered.

Counselors have always played important roles in ushering in new educational goals and priorities. Whether helping students at risk to acquire the insights and skills supportive to their staying in school or assisting all students to make appropriate career choices and plans which are important to both the students' and the country's future, counselors have played a significant role in providing support for educational priorities. To participate in the achievement of the six National Education Goals, counselors are shifting their efforts to focus on student learning and achievement to a higher degree than ever before.

Contributive Program Strategies

An effective guidance program, perhaps more than any other educational component, has the capacity to make major contributions to all six National Education Goals. School administrators, guidance directors, and others who are in a position to help determine the goals and content of their guidance programs can significantly enhance this capacity by encouraging the implementation of the following strategies:

1. Adopt a "comprehensive guidance" program model. This model provides for the systematic delivery of guidance as a curriculum organized around a sound theoretical framework, rather than a set of loosely related services. Features of the model that are particularly relevant to the National Goals include: (a) a focus on student behavior outcomes; (b) delivery of coordinated guidance services K–12; (c) attention to all students' developmental guidance needs; and (d) program evaluation and accountability.

2. Reach out to the community to involve parents and other community members in both the determination of guidance priorities and the delivery of counseling and guidance services. Meeting the guidance needs of all students in a school cannot be done by two or three counselors. However, counselors who play a "brokering" role by coordinating the many valuable contributions that others can make can significantly extend and enhance the guidance services that students receive.

3. Encourage collaboration and teamwork among the various education specialties. If teachers, counselors, psychologists, social workers, and other education specialists can be freed from a concern about "turf" issues, they can devote more time and energy to a concerted effort to achieving the National Education Goals.

4. Emphasize the mission of a guidance program to be the facilitation of better student adjustment as an intermediate outcome that enables students to achieve better academic performance rather than better student adjustment as an end in itself.

Specific Counselor Interventions

As individuals, counselors have the opportunities and skills to contribute to each of the National Education Goals in many different ways. The following examples provide an illustration of how counselors can and do contribute to each Goal.

Goal One: All children in America will start school ready to learn.

Counselors can:

- Assist in the selection of appropriate kindergarten screening instruments.
- Provide staff consultation on the interpretation of test results.
- Coordinate the kindergarten screening process.
- Interpret test results to parents.
- Provide information and support to parents.
- Work with Head Start and other pre-school programs to provide a smooth transition for students entering kindergarten.

Goal Two: The high school graduation rate will increase to at least 90 percent.

Counselors can:

- Help each student establish meaningful education and career goals.
- Identify and work with potential dropouts, individually and in small groups, at an early stage.
- Work with teachers, parents, and students to insure that individual students are able to stay at grade level.
- Address student attendance problems at an early stage.
- Interface school and community dropout prevention resources.
- Provide a caring and mentoring environment for students.
- Counsel students whose personal and family problems interfere with their school performance.
- Help students whose parents do not value education to develop an understanding of the importance of a high school diploma in today's competitive job market.
- Assist schools to use alternative approaches to assessment that, through meaningful feedback to students, motivate them to learn.

Goal Three: American students will be competent in the core subjects.

Counselors can:

- Assist students to develop effective study skills and habits.
- Help students to assess and make use of their individual learning styles.
- Establish programs that respect and reward student achievement in the core subjects.
- Provide consultation and/or individualized student assessment to help teachers diagnose specific learning problems of students.
- Work collaboratively with teachers to develop individualized study plans for students experiencing difficulty.
- Collaborate with teachers to undertake action research studies that compare the effectiveness of various education and counseling interventions.
- Help students overcome performance blocks due to test anxiety.

Goal Four: U.S. students will be first in the world in science and mathematics achievement.

Counselors can:

- Emphasize the importance of math and science in the workplace.
- Encourage students to enroll in math and science courses.
- Help students explore career opportunities in math and science.
- Encourage girls and minorities to enroll in math and science courses.
- Help students who have had difficulty in math and science in the past improve their study skills or develop new study strategies specifically for math and science.
- Assist students to examine and discard fears or negative attitudes towards preparation for careers in science and mathematics.

Goal Five: Every adult American will be literate and will possess the skills necessary to compete in a world economy.

Counselors can:

- Work with dropouts and potential dropouts to get them involved in adult education programs.
- Provide career guidance that informs students of the basic skills necessary to compete in today's job market.
- Encourage students to view learning as a lifelong process.

Goal Six: Every school will be safe and free of drugs.

Counselors can:

- Help parents and teachers recognize the signs of early drug use by students.
- Work collaboratively with special counselors employed in drug prevention programs.
- Help students learn how to overcome peer pressure.
- Work with administrators and teachers to develop and implement effective group guidance programs for preventing crime and violence in schools.
- Provide counseling to victims of violence.

Conclusion

As Ravitch points out, "Across America, in state after state, a decade of major reforms in education has so far failed to produce the anticipated improvement in the quality of our schools or the academic achievement of our students...Notably muted in the debate [regarding effective reform strategies] has been discussion of the engagement and motivation of the students themselves. It is a curious omission, for even if we raise standards and succeed at restructuring our schools and improving the quality of our teachers, the result may be little or no improvement unless our children also increase the level of their effort." (Tomlinson, 1992, p. iii).

Motivation is a complex psychological state that involves both the affective and cognitive domains. Without personally meaningful goals and objectives, both short and long term, students are not likely to put forth the effort that is needed for them to attain academic achievement. Counselors can help students develop these goals.

"School counselors are often the only mental health professionals to whom students will have access and they are the professionals who bridge the academic and affective domains in students' lives" (American School Counselor Association, 1992). By adopting a clear commitment to helping students achieve educational excellence and using a collaborative, community-based guidance approach, counselors can become a strong force for the attainment of the six National Education Goals.

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Goal 1: Readiness for School

By the year 2000, all children in America will start school ready to learn.

Objectives

- All disadvantaged and disabled children will have access to high quality and developmentally appropriate preschool programs that help prepare children for school.
- Every parent in America will be a child's first teacher and devote time each day helping his or her preschool child learn; parents will have access to the training and support they need.
- Children will receive the nutrition and health care needed to arrive at school with healthy minds and bodies, and the number of low birthweight babies will be significantly reduced through enhanced prenatal health systems.

Effective Practices for Preparing Young Children with Disabilities for School

by Christine L. Salisbury and Barbara J. Smith

Research Shows Childhood Intervention Makes a Difference

Over 50 years of research on children with many types of disabilities receiving a range of specialized services in many different settings has produced evidence that early intervention can: (1) ameliorate, and in some cases, prevent developmental problems; (2) result in fewer children being retained in later grades; (3) reduce educational costs to school programs; and (4) improve the quality of parent, child, and family relationships. Much of what we know about early intervention effectiveness is drawn from this diverse historical base of information.

More recently, researchers have begun asking a more rigorous and differentiated question: For whom and under what conditions is early childhood intervention most effective? This more sophisticated question focuses on the effects of various interventions for specific groups of children relative to the type of program they received. Data from well-controlled research studies indicate that young children with disabilities (e.g., Down Syndrome, autism, cerebral palsy, sensory impairments), and those who evidence biological (e.g., low birth weight, premature) and environmental risk factors make significant gains on both qualitative and quantitative measures of development when provided appropriate services. The involvement of their parents in reinforcing critical skills in natural contexts is an important factor associated with the magnitude of the child's progress (Guralnick, 1989).

In addition to encouraging parent involvement, it has been found that the most effective interventions are those that also: (1) occur early in the child's life, (2) operate from a more structured and systematic instructional base, (3) prescriptively address each child's assessed needs, and (4) include normally developing children as models. Programs with these characteristics produce the most reliable, significant, and stable results in child and family functioning (DeStefano, Howe, Horn, and Smith, 1991; Hanson and Lynch, 1989; McDonnell and Hardman, 1988).

The "Best Program" Depends Upon the Specific Needs of the Child

Conceptually, the fields of early childhood and early childhood special education promote the incorporation of instructional goals and curriculum content into normally occurring routines in the home, preschool, daycare center, and kindergarten settings (Bredekamp, 1986; Rainforth and Salisbury, 1988). Recognizing that children with special needs require efficient, effective, and functional instruction directed at achieving socially and educationally valid outcomes (Carta, Schwartz, Atwater, and McConnell, 1991), it is important that practitioners identify the nature of each child's needs and the extent to which accommodations and supports will be necessary for each child to be successful. Instructional arrangements, curriculum content, and instructional procedures can and should be varied to coincide with the intensity of each child's learning needs. Such accommodations increase the likelihood that children with special needs can be included in a vast array of typical classroom activities.

While many state and local agencies are still grappling with the issue of what kind of service delivery models they will endorse, it is clear that the special education and related services needs of young children with identified or at-risk conditions can be appropriately met in settings that include normally developing children (e.g., daycare, typical preschools, Head Start, regular classrooms) (Guralnick, 1990; Hanson and Hanline, 1989; Tempelman, Fredericks, and Udell, 1989). Integrated settings have, in fact, been found to produce higher proportions, rates, and levels of social, cognitive, and linguistic skills in children with disabilities than segregated settings (Brinker, 1985; Guralnick, 1990).

General Principles to Help Guide the Selection of Practices

Five general principles can be used to guide the selection of effective practices: least restrictive environment, family-centered services, transdisciplinary service delivery, inclusion of both empirical and value-driven practices, and inclusion of both developmentally and individually appropriate practices.

1. *Least Restrictive and Most Natural Environment*

Individuals with Disabilities Education Act (PL 99-457) states that children should be placed in the least restrictive environment or the most natural setting. This is not simply a placement issue, however; the method of providing services, regardless of setting, should allow for maximum participation in the "mainstream." Despite the limitations that a disability might place on a child's and family's ability to lead an ordinary existence, good services should promote the potential for "normal" rather than "disabled" routines by providing fun environments that stimulate children's initiations, choices, and engagement with the social and material ecology. Programs should focus on preparing children for the next, less restrictive, environment.

2. *Family-Centered Services*

A second principle is that service delivery models should (1) recognize that the child is part of a family unit; (2) be responsive to the family's priorities, concerns, and needs; and (3) allow the family to participate in early intervention with their child as much as they desire (Bailey, McWilliam, and Winton, 1992). Services that previously might have been geared almost exclusively toward children must have the

flexibility, expertise, and resources to meet the needs of other members of the family as those needs relate to the child's development (Public Law 99-457). It is strongly recommended that service providers give families choices in the nature of services; match the level of intensity of services desired by the family; and provide center-based services close to where families live.

3. *Transdisciplinary Service Delivery*

One model for increasing the opportunity for family members to make meaningful decisions and participate in early intervention is transdisciplinary service delivery (Raver, 1991). This model involves team members sharing roles: each specialist helps other members to acquire skills related to the specialist's area of expertise. This requires both role release (accepting that others can do what the specialist was trained specifically to do) and role acceptance (accepting that one's job can include more than what one was specifically trained to do). Transdisciplinary service delivery encourages a whole-child and whole-family approach, allows for the efficient use of the primary interventionist (i.e., the child and family do not always need to see many different specialists), and fosters skill development in everyone.

4. *Inclusion of Both Empirically and Value-Driven Practices*

Empirical research has shown that practices should include such features as adult:children ratios that maximize safety, health, and promotion of identified goals; barrier-free environments; and environments that promote high levels of engagement. Practices guided by values include having someone available to speak the family's preferred language; basing communication with family members upon principles of mutual respect, caring, and sensitivity; making environments safe and clean; employing clinic-based services *only* when they are identified as the least restrictive option; and giving opportunities for the family to have access to medical decision-makers.

5. *Inclusion of Both Developmentally and Individually Appropriate Practice*

"Developmentally appropriate practice" (DAP) refers to educational methods that promote children's self-initiated learning (Bredekamp, 1987) with emphasis on individualization of services in response to children's characteristics, preferences, interests, abilities, and health status and curricula that are unbiased and nondiscriminatory around issues of disability, sex, race, religion, and ethnic/cultural origin.

The reality of today's society is that any child, on a given day, may be a child with special needs. Recognizing this fact, it is important that local preschool and early education programs tailor curriculum and instructional practices to fit the diversity represented in their classrooms. Adapting the "standard" to fit those who may not fall within expected margins is a strategy necessary for effective teaching and learning and one that enhances the likelihood that children will feel and be successful.

This Digest was developed from selected portions of the following publications:

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Health Care, Nutrition, and Goal One

by Bernard Cesarone

In April, 1993, President Clinton sent to congress the Goals 2000: Educate America Act, which embraces the objectives of Goal One of the six national education goals. Goal One states that "By the year 2000, all children in America will start school ready to learn." One of the objectives formulated to meet this goal asserts that "Children will receive the nutrition and health care needed to arrive at school with healthy minds and bodies."

Problems which can affect children's later development and school readiness include lack of prenatal care, low birth weight, maternal substance abuse, malnutrition, vaccine-preventable diseases, sensory impairments, high blood lead levels, and anemia. Efforts to promote children's health and nutrition, and to prevent children's illness, include federal and state programs, and initiatives to serve preschool children in health care settings, in preschool programs, and in community settings. These efforts address prenatal care, health and nutrition of the developing child, parent education, preschool teacher education, and health and nutrition instruction for preschool children.

Federal and State Programs

Several federal programs which serve preschoolers' health and nutrition needs are managed by the U.S. Department of Health and Human Services. Project Head Start seeks to improve the social and educational competence of poor children through education, health, and social services. The Maternal and Child Health Block Grant Program provides poor women and children with perinatal care, nutrition services, immunizations, and health screening. Medicaid pays for the health care of poor children and families. The Early and Periodic Screening, Diagnosis and Treatment Program, which is part of Medicaid, contributes to improvements in the health of children from low-income families by funding immunizations, vision and hearing tests, and dental care. The U.S. Department of Agriculture operates the Supplemental Food Program for Women, Infants, and Children (WIC), which provides supplemental foods, nutrition education, and an entry point into health care services for pregnant and breastfeeding women and for children up to five years of age who are identified as nutritionally at risk (NHEC, 1992).

Many of the federal programs profiled above are administered by states, or are jointly funded with federal and state monies. Several states have launched efforts of their own to serve preschoolers' health and nutrition needs. The Kentucky Education Reform Act of 1990 authorized the establishment of family service centers in many of the state's school districts. Project Healthy Start in Hawaii consists of one-stop service centers located throughout the state to serve children and families at risk (Boyer, 1991). As part of Project Network of the Mississippi State Department of Health, nutritionists provide support and technical assistance to care-givers; develop education materials; and develop and implement community-based educational projects for nutrition students and health professionals (Ford, 1991).

Preschoolers' Health and Nutrition in Health Care Settings

In recent years, the increase in reported cases of preventable diseases such as measles and mumps has prompted individuals, groups, and school districts to undertake efforts to improve the immunization status of the preschool population. Early in 1993, President Clinton offered a proposal which, if adopted, would ensure the immunization of all preschool children.

The National Health/Education Consortium has begun a campaign to educate parents about the connection between their children's health and education, and inform them about promoting their children's learning. This multimedia campaign consists of videos that stress the importance of prenatal care, nutrition, immunizations, and periodic health screening; note pads with messages reminding parents of the health-education connection; and public service announcements (NHEC, 1993).

A number of model programs in the health care professions have had a positive impact on young children's health and nutrition. The Jackson-Hinds Comprehensive Health Center, for example, serves the health needs of poor children and adults in the city of Jackson and Hinds County, Mississippi, by providing free or low-cost health care to its patients. Services include acute medical and dental care, medical examinations, follow-up treatment, and health education. The center provides transportation for its patients (CDF, 1991).

Recommendations concerning the provision of health and nutrition services to preschool children have been offered by many commissions and organizations, including the National Commission on Children, the National Education Association, and the National Education Goals Panel. The Carnegie Foundation for the Advancement of Teaching recommends a three-pronged strategy to improve young children's health prospects: a national network of Ready-to-Learn clinics, a fully funded WIC, and comprehensive health education programs in all schools. The Ready-to-Learn clinics would be located in or near public schools, and would offer prenatal and other care for mothers, and health services for preschool children, including regular checkups, screening for vision and hearing problems, and testing for lead poisoning (Carnegie, 1990).

Preschoolers' Health and Nutrition in Preschool Settings

Head Start and other preschool programs participate in many of the federal and state programs described above. In addition, the health and nutrition status of preschool children can be addressed through preschool teaching methods and curriculum materials, model preschool programs, and standards and recommendations for preschool facilities.

Some research has indicated that there is a connection between food additives and children's learning disabilities, and that

children who eat an adequate breakfast show better late morning learning than other children. For these reasons, children in the preschool setting should be provided with nutritious breakfasts and snacks and should be offered nutritious foods such as fruits and vegetables instead of junk foods high in sugar, salt, and fat (Rothlein, 1991). One way to foster children's interest in nutritious food is to engage children in cooking experiences in the preschool classroom (Cosgrove, 1991).

A model program to serve children at risk of developmental delay and poor nutrition is the EARLY START project in Massachusetts. This project established a system of screening to identify children at nutritional risk, established a centralized nutritional data system for children from birth through three years of age, and provided nutrition training for parents and caregivers (Bayerl and Ries, 1992).

Many states and organizations have developed health and nutrition guidelines to be applied to child care facilities. The American Public Health Association and the American Academy of Pediatrics, for example, jointly published a set of standards for out-of-home child care programs. Among the topics addressed in these standards are health consultants to child care programs, staff health, health education, health protection and promotion in child care programs, special facilities for ill children, and preschoolers' nutrition. Standards for dealing with specific infectious diseases are also elaborated (APHA and AAP, 1992).

Preschoolers' Health and Nutrition in Community Settings

Los Ninos agency in San Ysidro, California, serves Mexican and Mexican-American children living in *colonias* along the California-Mexico border. The agency's efforts include teaching parents about basic food requirements, helping mothers plan menus and purchase food, and encouraging families to plant gardens to improve their diet with home-grown fruits and vegetables. The Data Care program in Richmond, Kentucky, is a comprehensive data system developed to track families with preschool children living in isolated communities. Parents who enroll their children in the system receive reminders when preventive health care visits to clinics are required for immunizations and well-baby checkups. Pathways to Understanding in Bernalillo, New Mexico, seeks to increase the effectiveness of health care professionals working with American Indian families by improving their knowledge of culturally appropriate methods of providing care to American Indian children (Ford, 1991).

Conclusion

Research has shown that poor health affects children's learning. The effects include cognitive and socioemotional deficits, low scores on developmental and achievement tests, and inattentiveness. Programs that provide children with access to good nutrition and health care and education about health and nutrition, such as those described in this Digest, can lessen or eliminate these detrimental effects and foster the school readiness of preschool children.

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ERIC Clearinghouse on Languages and Linguistics

Early Childhood Programs for Language Minority Children

by Helen Nissani

Parents are the primary teachers of young children. Bowman (1989) points out that "children are taught to act, believe, and feel in ways that are consistent with the mores of their communities" (p.119). To promote the healthy self-esteem of each and every young child, early childhood education programs must be thoughtfully designed to serve both parents and children—all the more so for those who speak a language other than English at home.

Many early childhood programs are designed to provide both child care and education. Kagan (1989) observes that "we cannot separate care and education . . . whether labeled child care or education, high-quality programs for preschoolers deliver both" (p.112). She further suggests that we should design programs that serve the whole child's development—social/emotional, physical, and cognitive—within the context of the family and community. These programs must employ developmentally appropriate practices that respect individual differences and choices and that recognize the individual child's development. They must also incorporate the family and home culture and make the parents an integral part of the program. To achieve these goals, programs must develop staff who are thoroughly familiar with early childhood development, skilled at interacting with parents and the community, and sensitive to the cultural and linguistic needs of children from diverse backgrounds.

This Digest will discuss the following components of effective early childhood programs for language minority children: developmentally and culturally appropriate practices, parent involvement, and staff training and development.

Developmentally Appropriate Practices

The cognitive/developmental approach. Current research in early childhood education clearly points to the benefits of a cognitive/developmental approach, which assumes that young children "learn naturally and casually as they live their lives, and that play . . . is valuable learning" (Greenberg, 1990, p. 72). This learning goes on developmentally as the child matures. Intellectual learning is fostered but not given priority over physical, social, and emotional learning. Self-discipline is encouraged as is self-esteem. In a cognitive/developmental approach, children are encouraged to become involved in purposeful and creative activities with other children, to make major choices among hands-on learning activities, to initiate and accomplish self-motivated tasks within a rich environment, and to construct knowledge at their own individual pace by discovering and engaging in open-ended activities that reflect all areas of their development while dialoging with supportive adults. Parents can play a key role in this approach. Developmental programs are designed to meet all the needs of young children and provide programming that is personally meaningful to each and every child within the context of the child's culture, primary language, and family.

The developmental approach to planning programs for young children is especially appropriate for language minority children. This type of program can provide enriching experiences for each child to act upon individually. There are no preconceived notions as to the correct method of interaction with materials. Experiences in art, music, small and gross motor activities, along with language arts, are provided in environments that accept each child's individual development and encourage each child to interact purposefully with and extract meaning from these experiences. Each child is valued as an individual learner. All children are regarded as capable of learning and each child's learning style, cultural point of reference, and language are valued. Well designed developmental early childhood programs enhance the self-esteem of the young language minority child.

Serving the whole child within the context of the family and community. To ensure the success of all young language minority children in developmental settings, educators need to create learning environments that are culturally and linguistically relevant. The Head Start Multicultural Task Force (1989) notes that "multicultural programming incorporates approaches that validate and build upon the culture and strengths of the child and family" (p. 1). This approach requires that educators examine their own expectations and biases as well as incorporate materials and activities that have special relevance to the children. According to Ramsey (1982), "the goal is not to teach children about [different] cultures but rather to help children become accustomed to the idea that there may be many life styles, languages, and points of view" (p. 200). The family is the group of greatest importance to young children (Derman-Sparks *et al.*, 1989). Multicultural educational experiences validate each child's family and thus promote healthy self-concepts. To ensure the development of a positive, nurturing environment that reflects both the dominant and home cultures is an important task that can be accomplished by well trained educators.

Differences in culture between home and school are not the only issue in the case of children from homes where English is not spoken. Ideally, educators should speak the home language of the children in order to assist more effectively in their development. As Bowman (1989) points out, "Learning a primary language is a developmental milestone for young children and is, therefore, a 'developmentally appropriate' educational objective."

Culturally Appropriate Practices

Cultural diversity makes it difficult to assess each child's developmental status in each area of development. Recent research (e.g., Edwards and Gandini, 1989) has shown that developmental milestones and expectations vary from culture to culture. In order to design appropriate programs for language minority children, educators need to understand not only the values of a specific culture but the goals for socialization, beliefs about the nature of the child, and various child-rearing techniques.

Bowman (1989) asks whether it is possible to design a developmentally appropriate curriculum for a program that includes children from diverse cultures who do not speak the same language. Given that children do not all develop in the same way, Bowman concludes that the same curriculum cannot be used for all children. However, it is possible to develop a

conceptual framework that a culturally sensitive teacher might follow. Bowman (1990) suggests the following points that teachers should consider.

Developmentally equivalent patterns of behavior should be recognized. All children learn similar things: language, systems of categorization, interpersonal communication styles, etc. Although these accomplishments may appear quite different, they can also be seen as developmentally equivalent.

All equivalent developmental milestones should be given the same value. How well a young child speaks her own language may be more important than how well she speaks English.

Interactive styles familiar to the child should be used, including using the child's home language. Many educators see preschool programs as an opportunity to promote rapid acquisition of English. This is at variance with the whole idea of developmentally appropriate practices. Children at the age of 3 and 4 are still in the process of developing their first language. The consequences of very early second language acquisition may not be beneficial to all children. Wong-Fillmore (in press) suggests that young children who rapidly learn their second language do so at the cost of losing interest and ability in their first or home language. The first language is the primary mode of communication between young children and their parents. Children are socialized to take part in their home and community through the home language.

Family values that promote learning should be reinforced. The goals of the program should be explained to the parents so that they can cooperate and foster a positive attitude toward achievement in school.

Differences between home and school cultural patterns must be dealt with directly. Teachers as well as parents have to become aware of possible discrepancies between home and school cultures. Language minority children may often find themselves trying to respond to conflicting home and school cultural expectations. Young Hispanic children may be expected to be quiet around adults but to "speak up" to the teacher in the classroom.

It should be recognized that the same content may have different meaning to different groups of children. Bears are often portrayed as benign creatures in many stories for children. In Navajo culture, bears are usually depicted as wicked creatures. A story about Smokey the Bear might be understood by Navajo children differently from the way non-Navajo children might understand it. This can result in confusion for the Navajo children and frustration on the part of the teacher. Alternate stories might have to be considered.

The Role of Parents

According to leading researchers in school and family issues, the key factor in a child's academic success is the parent (Olsen, 1990). "Many kinds of development in social, psychological, emotional, moral, linguistic, and cognitive areas are critical to academic learning. The attitudes, values, and behavior of the family and its social network strongly affect such development" (Comer, 1980, p. 22). Therefore, the home and school should work together and support one another in the job of nurturing and educating young children. The family should not only be consulted as programs for young children are designed, but provisions to involve the parents in every aspect of these programs should be mandatory.

The importance of good cross-cultural communication cannot be overemphasized. The goals, aspirations, cultural mores, and values of each family must be respected by early childhood practitioners. Language assessments, developmental screenings, and other evaluations and planning sessions should not be carried out without input from the parents. Through both informal and formal contacts with parents, educators can become familiar with individual cultures, values, and practices.

Staff Training and Development

All early childhood educators need to be thoroughly familiar with early childhood practices and philosophy to implement effective programs. In addition, educators working with young language minority children need to be sensitive to the cultural and linguistic needs of these children.

Staff development training should include hands-on experiences with appropriate practices, concrete examples illustrating the design of various models of early childhood programs, and imaginative activities designed to assist teachers in the creation of the program, curriculum, and learning environment. Strategies to promote positive home-school-community relationships should be included in inservice training for all early childhood educators. In addition, training in cross-cultural communication will help practitioners interact with language minority children and their families.

Conclusion

The language minority family requires services that strengthen the family so that it may nurture and support the development of healthy, competent young children. Comprehensive developmental early childhood programs can be designed to meet these family needs. Programs can and should be developed in such a manner that parents are respected and are actively involved.

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ERIC Clearinghouse on Urban Education

Increasing the School Involvement of Hispanic Parents

by Morton Inger

The importance of family structure and support for extended families remains strong among Hispanics in the U.S. despite news reports about the decline of the traditional family in general. At home, Hispanic children are usually nurtured with great care by a large number of relatives. Often, however, family members don't extend their caregiving role into their children's schools; they are reluctant to become involved in either their children's education or in school activities. In the case of poor Hispanic parents, interactions with school range from low to nonexistent (Nicolau and Ramos, 1990).

There is considerable evidence that parent involvement leads to improved student achievement, better school attendance, and reduced dropout rates, and that these improvements occur regardless of the economic, racial, or cultural background of the family (Flaxman and Inger, 1991). Thus, given that 40 percent of Hispanic children are living in poverty, that Hispanics are the most under-educated major segment of the U.S. population, and that many Hispanic children enter kindergarten seriously lacking in language development and facility, regardless of whether they are bilingual, speak only English, or speak only Spanish, the need to increase the involvement of Hispanic parents in their children's schools is crucial.

Schools and Hispanics: Separated by Social Barriers

In Hispanics' countries of origin, the roles of parents and schools were sharply divided. Many low-income Hispanic parents view the U.S. school system as "a bureaucracy governed by educated non-Hispanics whom they have no right to question" (Nicolau and Ramos, 1990, p. 13). Many school administrators and teachers misread the reserve, the non-confrontational manners, and the non-involvement of Hispanic parents to mean that they are uncaring about their children's education—and this misperception has led to a cycle of mutual mistrust and suspicion between poor Hispanic parents and school personnel.

Many schools have unconsciously erected barriers to Hispanic parents, adopting a paternalistic or condescending attitude toward them. In some cases, parent-teacher organizations meet during working hours, and material sent home is in English only. Few teachers or administrators are offered guidance or training to help them understand and reach out to Hispanic parents, and school personnel rarely speak Spanish. Less than three percent of the nation's elementary school teachers, less than two percent of secondary teachers, and only two percent of other school personnel are Hispanic (Orum and Navarette, 1990).

The Hispanic Family: An Untapped Resource

One step that schools can take is to understand and tap into an important and under-utilized source of strength—the Hispanic extended family. Aunts, uncles, grandparents, cousins, godparents, and even friends all play a role in reinforcing family values and rearing children. This is a resource that schools can and should draw on.

With budget cuts affecting virtually every school district in the country, public schools have turned to parents for help. Parents keep school libraries open, raise funds for computers and playground equipment, and, at some schools, even pay out of their own pockets to continue before-school and after-school enrichment programs. Although worthwhile, these efforts raise troubling questions: "[W]hat happens to schools in which parents do not have enough money to compensate for the system's failings?" (Chira, 1992). And what happens at schools where Hispanic parents are not involved and therefore are not available to supplement the school's staff? Does this put their children at an increased competitive disadvantage? Budget crises thus reinforce the urgency for schools to break down the barriers between them and Hispanic families.

Through expanded outreach efforts, a budget crisis could be an opportunity to bring Hispanic family members into the school. Even if the parents are working and cannot volunteer their time, other available family members could serve as a pool of potential volunteers. If the schools need their help, and if this need is made clear, Hispanic family members are more likely to feel welcome, useful, and respected, and this participation could lead to a fuller involvement with the school.

But the need for schools to work with what Delgado (1992) calls the "natural support systems" of Hispanics—e.g., the extended family, neighborhood mutual-help groups, community based organizations—goes beyond the short-term exigencies of a budget crisis. By working with these natural support systems and not insisting on meeting only with the nuclear family, schools can draw poor Hispanic families into the system.

Removing the Barriers

Some educators, community groups, and government agencies are working to develop ways to encourage greater participation by low-income, non-English-speaking parents. Some school districts now employ a range of special training programs to

help parents build self-esteem, improve their communication skills, and conduct activities that will improve their children's study habits. Within the U.S. Department of Education's Office of Elementary and Secondary Education (OESE), Project Even Start provides assistance to instructional programs that combine adult literacy outreach with training to enable parents to support the educational growth of their children.

In the private sphere, many Hispanic organizations have undertaken a variety of projects to improve the relationship between schools and poor Hispanic families. For example, the Hispanic Policy Development Project (HPDP) conducted a nationwide grant program to promote and test strategies to increase Hispanic parental involvement in the schooling of their children. And the National Council of La Raza (NCLR) runs a series of demonstration projects, called Project EXCEL, that combine tutoring and enrichment programs for Hispanic children with training seminars for parents.

Recommendations

The following recommendations are based on what has been learned from the efforts of educators and community groups to improve Hispanic parent involvement.

Programs that increase and retain the involvement of Hispanic parents follow a simple, basic rule: they make it easy for parents to participate. In Detroit's Effective Parenting Skills Program, for example, programs and materials are bilingual, baby-sitting is provided, there are no fees, and times and locations of meetings are arranged for the convenience of the parents (Linn, 1990, cited in Flaxman and Inger, 1991). Other programs provide interpreters and transportation.

Outreach efforts require extra staff. They take considerable time and cannot be handled by a regular staff person with an already full job description. Also, successful outreach is organized by people who have volunteered, not by people who have been assigned to the job.

Hispanic parents need to be allowed to become involved with the school community at their own pace. As the Hispanic Policy Development Project (HPDP) learned, "All the schools that felt that poor Hispanic parents should begin their involvement by joining the existing parents' organizations failed" (Nicolau and Ramos, 1990, p. 18). Before they join existing parent organizations, Hispanic parents want to acquire the skills and the confidence to contribute as equals.

The hardest part of building a partnership with low-income Hispanic parents is getting parents to the first meeting. HPDP found that impersonal efforts—letters, flyers, announcements at church services or on local radio or TV—were largely ineffective, even when these efforts were in Spanish. The only successful approach is personal: face-to-face conversations with parents in their primary language in their homes.

Home visits not only personalize the invitations but help school staff to understand and deal with parents' concerns. The schools learn, for example, which families need baby-sitting or transportation; and the parents learn whether they can trust the school staff or otherwise allay their fears about attending. Since many low-income Hispanics feel uncomfortable in schools, successful projects hold the first meetings outside of the school, preferably at sites that are familiar to the parents. Successful first meetings are primarily social events; unsuccessful ones are formal events at school, with information aimed "at" the parents.

To retain the involvement of low-income Hispanic parents, every meeting has to respond to some needs or concerns of the parents. Programs that consult with parents regarding agendas and meeting formats and begin with the parents' agenda eventually cover issues that the school considers vital; those that stick exclusively to the school's agenda lose the parents.

Based on what it learned from its 42 School/Parent projects, HPDP concluded that overcoming the barriers between schools and Hispanic parents does not require large amounts of money; it does require personal outreach, non-judgmental communication, and respect for parents' feelings. HPDP found that although Hispanic school personnel can facilitate the process, non-Hispanics can also be effective. In fact, HPDP reported that the two most successful and innovative programs were led by a Chinese principal and an Anglo principal. Both, however, spoke Spanish.

Resources

ASPIRA, 1112 16th Street NW, Suite 340, Washington, DC 20036

Hispanic Policy Development Project, 250 Park Avenue South, Suite 5000A, New York, NY 10003

Mexican American Legal Defense Fund, 634 South Spring Street, 11th Floor, Los Angeles, CA 90014

National Council of La Raza, 810 First Street NE, Suite 300, Washington, DC 20002-4205

National Puerto Rican Coalition, 1700 K Street NW. Washington, DC 20006

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Goal 2: High School Completion

By the year 2000, the high school graduation rate will increase to at least 90 percent.

Objectives

- The nation must dramatically reduce its dropout rate, and 75 percent of those students who do drop out will successfully complete a high school degree or its equivalent.

- The gap in high school graduation rates between American students from minority backgrounds and their nonminority counterparts will be eliminated.

Integrated Services: New Roles for Schools, New Challenges for Teacher Education

By Ismat Abdal-Haqq

Integrated services (IS) is a coordinated, holistic approach to addressing the needs of children—particularly the complex, intcrrelated problems of at-risk children—by providing a comprehensive range of educational and human services. In these programs, schools are the hub of a coordinated network of service providers and the link between these service providers and children and their families. School-linked IS programs focus on prevention, promoting wellness for children and their families, and providing services that overcome barriers to school readiness and academic success (Center for Research, 1992). These services include drug abuse counseling, gang-diversion programs, health care, teen pregnancy counseling, job training and counseling, tutoring and remedial education, mentoring, drop-out prevention, after-school care, literacy training, parent education, mental health services, child abuse programs, recreation, programs to reduce intergroup tensions and student conflict, and programs for homeless youth ("Evaluation in a Sample," 1992).

Target Population

Most integrated services programs target at-risk youth, children who have a high probability of not receiving sufficient education to become independent, successful, and productive adults (Center for the Study, 1992). Children considered at risk include: children of migrant workers, adjudicated youth, limited-English-speaking youth, pregnant minors, children in single-parent families, children who live in poverty, children with a record of poor attendance or behavior problems, abused children, and homeless children ("Evaluation in a Sample," 1992; Olenick and McCroskey, 1992).

Rationale

The argument for implementing school-linked integrated services rests on six basic premises.

1. All facets of a child's well-being impact on his or her potential for academic success. (Kirst, 1990).

2. Demographic trends indicate that an increasing number of American school-age children can be considered at-risk for school failure and other social problems such as drug abuse and incarceration (Hodgkinson, 1989; Usdan, 1991).

3. Prevention is more cost-effective for society than correction or remediation. For example, Hodgkinson (1989) reports that there is an established relationship between dropping out of school and the probability of committing a crime and that drop-out prevention is cheaper in the long run than the cost of incarceration.

4. At-risk children come to school with multiple problems that cut across conventional health, social, and education systems boundaries—problems that schools are ill-equipped to handle alone (Kirst, 1990).

5. The current system of child-related service delivery is fragmented, often characterized by duplication, waste, and lack of coordination. Consequently, many children fall through the cracks and don't get the services they need (Kirst, 1990).

6. Because schools have sustained, long-term contact with the majority of children, they are the logical gateway for providing multiple services to children (Kirst, 1990).

Characteristics

There is no one model for school-linked integrated services programs. Some programs are school-based, with services delivered on-site by school personnel, while other programs provide services at community agencies, human services offices, churches, or in the student's home. However, model programs are family-focused, prevention-oriented, community-centered, and responsive to local needs. In addition, they offer a comprehensive continuum of services; they avoid duplication and gaps in services through communication and collaboration among service providers; and they are designed so that each child and family has a personal relationship with program staff (Robinson, 1990). Successful programs are also characterized by shared governance, collaborative funding and planning, ownership by the school, redefined school faculty roles, establishment of a case manager position, gradual phase-in of program components, and extensive training and staff development (Center for Research, 1992; Pollard, 1990).

Problematic Issues

Collaboration and coordination among educational and human services providers are the cornerstones of successful school-linked integrated services programs. However, state and federal regulations often impose confidentiality requirements that block the sharing of information among service providers.

There are many school professionals and others who believe that involvement in social service delivery will overburden the schools and divert time and resources from the schools' primary mission ("Analysis," 1992; Ooms and Owens, 1991).

School-based or school-linked services may not be the most viable approach for some students and their families. In many communities schools are not viewed as sympathetic to the interests and concerns of local residents. Many of the neediest youth are drop-outs who no longer have regular contact with any school. The existence of magnet schools and busing often means that a needy child's school is not conveniently located for family visits or after-school activities. For those who are unable or unwilling to utilize school-linked services, multiple access points to social services are needed (Chaskin and Richman, 1992).

Implications for Teacher Education

Teachers need to be trained to identify students who need intervention; to handle problems in the classroom; to locate sources of help for students; to take part in the collaborative process; and to view themselves as part of a team effort to address the academic, social, and health development of students (Center for Research, 1992; Bucci and Reitzammer, 1992). At present, integrated services-related teacher education consists primarily of inservice workshops. Robinson and Masty (1989) recommend interdisciplinary training at the preservice level. To implement these kinds of programs, higher education institutions will need to restructure their professional programs in ways that facilitate interprofessional training since professional schools have traditionally operated in isolation from one another (The Health/Education Connection, 1990; Kirst, 1990).

However, the growing interest in school-linked integrated services has stimulated teacher educators to initiate programs to remedy this situation. For example, Ohio State University (Columbus) has developed a project to promote interprofessional training: the Commission on Interprofessional Education and Practice. The American Association of Colleges for Teacher Education recently received a $1.4 million grant from the DeWitt Wallac Reader's Digest Fund to establish a 3-year demonstration project to facilitate incorporation of health and human services training into teacher education programs. The four sites which were funded are Jackson State University (Mississippi), University of Louisville (Kentucky), University of New Mexico (Albuquerque), and University of Washington (Seattle) (Snider, 1992).

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Empowering Young Black Males

by Courtland C. Lee

Young Black males in contemporary American society face major challenges to their development and well-being. Social and economic indicators of Black male development provide a profile of an individual whose quality of life is in serious jeopardy. Significantly, the literature in recent years has referred to the young Black male as an endangered species (Gibbs, 1988). From an early age, it has become increasingly apparent that Black males are confronted with a series of obstacles in their attempts to attain academic, career, and personal-social success.

The Black Male in America's Schools

Black male youth face formidable challenges to their educational development. Statistics on educational attainment would suggest that many Black youth are at risk in the nation's schools. However, a closer examination of the data indicates that Black males are at greatest risk. According to Reed (1988):

- The overall mean achievement scores for Black male students are below those of other groups in the basic subject areas.
- Black males are much more likely to be placed in classes for the educable mentally retarded and for students with learning disabilities than in gifted and talented classes.
- Black males are far more likely to be placed in general education and vocational high school curricular tracks than in an academic track.
- Black males are suspended from school more frequently and for longer periods of time than other student groups.
- Black females complete high school at higher rates than Black males.

Such data are compounded by the fact that Black males are frequently the victims of negative attitudes and lowered expectations from teachers, counselors, and administrators. Educators may expect to encounter academic and social problems from Black males, which often leads to a self-fulfilling prophecy (Washington and Lee, 1982).

Frustration, underachievement or ultimate failure, therefore, often comprise the contemporary educational reality for scores of Black male youth. It is evident that Black males from kindergarten through high school tend to experience significant alienation from America's schools. The consequences of this are major limitations on socioeconomic mobility, ultimately leading to high rates of unemployment, crime, and incarceration for massive numbers of young Black men.

Psychosocial Development of Young Black Males

Theorists such as Erikson (1950) have suggested that major aspects of human development unfold in a series of life stages. As individuals progress through the life stages, they must achieve a series of developmental tasks. The achievement of these tasks at one stage of life influences success with tasks in succeeding stages.

When considering the psychosocial development of young Black males, it is important to note that social, cultural, and economic forces throughout American history have combined to keep Black males from assuming traditional masculine roles (Staples, 1982). The historical persistence of these forces and limited access to masculine status have generally resulted in significant social disadvantage for Black males. In many cases, this disadvantage has prevented them from mastering crucial developmental tasks in childhood and adolescence, which in turn negatively influences their academic, career, and social success in later stages of life.

African American Culture: Its Importance to Black Male Socialization

Empowerment interventions for young Black males must take into account African American culture and its crucial role in fostering socialization. An examination of core Black culture (i.e., those attitudes, values, and behaviors which have developed in homogeneous Black communities where rudimentary Afrocentric ways have been preserved in relatively large measure), will reveal that many Black boys are socialized within a cultural tradition that places a high premium on group-centered cooperation and fosters development through cognitive, affective, and behavioral expressiveness (Nobles, 1980; Pasteur and Toldson, 1982).

The cultural dimensions of Black male socialization can often be seen in peer group interactions among boys. Within these groups young boys often develop unique and expressive styles of behavior sometimes referred to as "cool pose" (Majors, 1986). "Cool pose" has a significant relationship with optimal mental health and well-being for young Black males. Observing Black male youth, the dimensions associated with "cool pose" are readily apparent in such phenomena as the expressiveness of rap music or athletic prowess.

Empowerment Interventions: Guidelines for Action

The academic and social challenges which confront Black male youth in the school setting suggest a pressing need for programmed intervention on the part of educators. Counselors committed to the cause of Black male empowerment can play an active role in promoting developmental initiatives at both the elementary and secondary level. Such initiatives must focus on helping Black male youth develop attitudes, behaviors, and values necessary to function at optimal levels at school and in the world. Young Black males need specific guidance to master educational challenges.

Such guidance might be provided through culture-specific developmental group counseling experiences in the elementary or secondary school setting. These empowerment experiences should develop the attitudes and skills necessary for academic achievement, foster positive and responsible behavior, provide opportunities to critically analyze the image of Black men, expose participants to Black male role models, and develop a sense of cultural and historical pride in the accomplishments of Black men. Four general guidelines are suggested for the development of any school-based empowerment strategies:

Empowerment strategies should be developmental in nature. Far too often, the only guidance young Black males receive comes after they have committed an offense against the social order. Generally the goal of such guidance is not development, but rather punishment. Concerned counselors should act in a proactive manner to help empower Black male youth to meet challenges that often lead to problems in school and beyond.

Empowerment strategies should provide for competent adult Black male leaders. This is important for two reasons. First, only a Black man can teach a Black boy how to be a man. By virtue of attaining adult status as Black and male, he alone has the gender and cultural perspective to accurately address the developmental challenges facing Black boys. While Black women and individuals of both sexes from other ethnic backgrounds can play a significant role in helping to empower young Black males, it is only a Black man who can model the attitudes and behaviors of successful Black manhood. Second, there is a paucity of Black male educators in American schools. It is not unusual for a Black boy to go through an entire school career and have little or no interaction with a Black male teacher, counselor, or administrator. When necessary, therefore, efforts should be made to actively recruit, train, and support competent Black men who can serve as leaders or role models in empowerment interventions.

Empowerment strategies should incorporate African/African American culture. Counselors should find ways to incorporate African American (Black) cultural dimensions into the empowerment process for young Black males. Culture-specific approaches to counseling intervention transform basic aspects of Black life, generally ignored or perceived as negative in the traditional educational framework, into positive developmental experiences. For example, Black art forms (e.g., music, poetry) and culture-specific curriculum materials might be incorporated into empowerment interventions as counseling or educational aids.

Empowerment strategies should include some type of "Rites-of-Passage" ceremony. Unlike the traditions of African culture where great significance was attached to the transition from boyhood to manhood, there is little ceremony in Black American culture for the formal acknowledgement of life transitions for young boys. It is important, therefore, that at the completion of any empowerment experience for Black boys there is some ceremonial acknowledgement of their accomplishment. Parents and men from the community should be encouraged to participate in such "rites-of-passage" ceremonies.

Educational Advocacy for Black Male Students

As previously mentioned, the academic and social problems confronting Black male students are often exacerbated by the attitudes and practices of educators, which often suggest a lack of sensitivity or understanding of Black culture and the dynamics of male development. Counselors committed to Black male empowerment, therefore, may need to assume the role of educational advocate. Educational advocacy involves consultation activities initiated by counselors to help their fellow educators better understand the dynamics of male development from a Black perspective and make the teaching-learning process more relevant to Black male realities. The following are guidelines for such consultation activities:

Educator Attitudes and Behavior. It is an educator's unalterable responsibility to challenge and to change any attitudes or behaviors which may be detrimental to the welfare of Black male students. Educational advocates, therefore, should help school personnel: (1) examine the incidence of discipline in the classroom to ensure that Black males are not receiving a disproportionate share of reprimands or negative feedback; (2) delineate and challenge stereotypes they may have acquired about Black boys and their expectations of them; and (3) develop an understanding of gender and cultural diversity.

Curriculum Content and Methods. Optimal learning occurs when a Black male perceives that he and his unique view of the world is appreciated. Educational advocates, therefore, should help school personnel: (1) find ways to integrate the accomplishments of Black men into the existing curriculum structure, and (2) continuously examine the curriculum to ensure that Black males are included in primary and nonstereotyped roles.

Ensuring role model presence. In addition to increasing the number of Black male educators, strategies must be aimed at compensating for role model absence in the school setting. Educational advocates, therefore, should help school personnel: (1) find ways to ensure the inclusion of Black males in classroom activities as tutors, educational assistants, storytellers, "room fathers," and field trip escorts; (2) find ways to encourage the participation of Black males in Parent-Teacher Associations and other school organizations; and (3) acknowledge the importance of non-educational personnel (e.g., Black male custodians and lunchroom staff) as valid mentors/role models and find ways to use them in the educational process wherever possible.

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For a fuller discussion of this topic, see the book *Empowering Young Black Males* by Courtland C. Lee upon which this Digest is based.

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Peer and Cross-Age Tutoring

by Joan Gaustad

One-to-one tutoring has long been recognized as superior to group instruction, especially for students with special needs. Tutoring can adapt instruction to the learner's pace, learning style, and level of understanding. Feedback and correction are immediate. Basic misunderstandings can be quickly identified and corrected, practice provided, and more difficult material introduced as soon as the student is ready.

Tutoring has emotional as well as cognitive benefits. Students can achieve at their own pace without being compared with faster learners. The extra attention and emotional support may help fill important psychological needs for children from troubled or single-parent families.

Research has demonstrated that with proper training, students can successfully tutor other students. Strikingly, student tutors often benefit as much or more than their tutees (Gaustad, 1992).

What Are Peer and Cross-Age Tutoring?

Peer tutoring occurs when tutor and tutee are the same age. In *cross-age tutoring,* the tutor is older than the tutee. However, sometimes the term peer tutoring is used to include both types.

Successful programs take many forms. Three programs serve to illustrate the wide range of configurations possible.

The *Willamette High School Peer Tutoring Program* seeks to improve the academic performance of at-risk ninth graders. This program in Eugene, Oregon, selects academically strong students as tutors and gives them academic credit for training classes and tutoring. Tutors "sit in" on their tutees' classes and assist them during ongoing class activities (Gaustad).

The *Coca-Cola Valued Youth Program* (VYP), developed by the Intercultural Development Research Association (IDRA) in San Antonio, Texas, recruits low-achieving Hispanic middle school students to tutor at-risk Hispanic elementary students. Tutors, who are the program's primary focus, are paid as well as given academic credit. The program seeks to prevent tutors from dropping out, improve their academic skills and attitudes toward self and school, and decrease truancy and disciplinary referrals by making them valued members of the school community (Cardenas and others, 1991).

The *Companion Reading Program* was developed by Brigham Young University Professor Grant Harrison for levels K–3 and higher. Tutoring is one of several integrated instructional components. All students in a class take turns acting as tutor and tutee during daily exercises. Students thus reap the benefits of both roles (Metra, 1992).

What Makes Peer and Cross-Age Tutoring Effective?

Children have certain advantages over adults in teaching peers. They may more easily understand tutees' problems because they are cognitively closer. Allen and Feldman found that third and sixth graders were more accurate than experienced teachers in determining from nonverbal behavior whether agemates understood lessons (cited in Allen, 1976). The fact that their "cognitive framework" is similar may also help peer tutors present subject matter in terms their tutees understand (Cohen, 1986).

Peer tutors can effectively model study skills such as concentrating on the material, organizing work habits, and asking questions. Cohen notes that similarity between model and learner increases the influence of modeling. An at-risk child may more easily identify with a student relatively close in age, particularly one of the same ethnic or social background, than with an adult. Higher status also promotes the effect of modeling. Cross-age tutoring takes advantage of the higher status inherent in the age difference while still retaining considerable similarity.

Tutors who have struggled academically may be more patient and understanding than those who haven't (Lippitt, 1976). The IDRA's Josie Supik believes empathy contributes greatly to low-achievers' effectiveness as cross-age tutors. Supik said VYP tutors often "pick up on things teachers weren't able to" because they had experienced similar problems a few years earlier (Gaustad).

Peer and cross-age tutoring often improve the overall school atmosphere. Teachers and parents in Faribault, Minnesota, found Companion Reading reduced competition and created a more supportive classroom environment. "The children seemed much more accepting of their peers and classmates and I've heard less derogatory remarks about classmates," wrote one parent (Stofferahn, 1988).

How Do Student Tutors Benefit from Tutoring?

Tutors benefit academically from the time spent reviewing and practicing material with their tutees. In programs like the Valued Youth Program, whose training classes encourage critical and higher-order thinking skills (IDRA, 1991), tutors may also experience higher cognitive gains. Organizing material to teach "facilitates long-term retention, as well as aiding in the formation of a more comprehensive and integrated understanding" (Cohen). Tutoring also provides opportunities to practice and improve communication skills and work habits.

Tutors' self-esteem rises as they see their tutees improve. Knowing they are making a meaningful contribution is a powerful experience. Supik reported that many VYP tutors stop skipping classes and behaving disruptively after they realize they are role models for their tutees (Gaustad).

What Problems Are Commonly Encountered?

Simply putting two students together won't result in successful tutoring. Untrained tutors—whether adults or students—may resort to threats of punishment and scornful put-downs. Tutors need training to master effective tutorial and communication skills.

Another potential problem is that student tutors may not completely understand the material to be taught. Cohen suggests assessing potential tutors' comprehension before assigning them to tutor. However, a tutor need not be an excellent student, especially in the case of cross-age tutoring. "A sixth grader operating at a fourth grade level can be an excellent helper of a second grader who is also operating below grade level," Lippitt points out.

One drawback of peer tutoring is that tutees, often labeled as less capable than tutors, tend to resist being tutored by agemates. School counselor Cassie Malecha reports that some students resisted being tutored when the Willamette High School program began. "But when they realized it was really beneficial, students started asking for it: 'She's helping him, why can't she help me?'" Tutoring eventually became a normal, accepted part of school life (Gaustad). The Companion Reading Program avoids status problems by having classmates take turns tutoring and being tutored.

Scheduling is a challenge with cross-age tutoring because it requires coordinating the schedules of two sets of students. Offering tutoring as a credit class gives tutors a predictable block of time. However, one period may not provide enough time if tutors and tutees attend schools some distance apart. Harrison found many schools were unwilling to cope with the logistical problems of cross-age tutoring, despite its effectiveness. He designed the self-contained Companion Reading Program in response to this problem (Gaustad).

What Elements Are Necessary for a Successful Program?

The design of a tutoring program is dictated by its objectives, including age group targeted and subject area, and by the availability of human, physical, and financial resources.

Establishing specific, measurable objectives permits assessment of individual progress and evaluation of the program's success as a whole. Frequent assessment of student progress gives program staff feedback on the effectiveness of lessons and encourages both tutor and tutee (Lippitt).

Procedures must be established for selecting and matching tutors and tutees. Examples of tutee selection criteria include test scores, Chapter 1 eligibility, and teacher judgment. Tutors may be screened for desired attitudes or levels of academic competence. The Valued Youth Program, which recruits students who meet state at-risk criteria, accepts those with records of minor disciplinary problems but draws the line at criminal behavior.

Tutors may be given basic training to accompany carefully structured materials, as in the Companion Reading Program, or extensive training that enables them to make more independent decisions. Extensive training is desirable when tutor progress is the main objective.

Tutors need ongoing supervision and support. Younger tutors will require more structure and closer supervision. In periodic group meetings, older tutors gain psychological support by talking out frustrations and sharing success stories. Tutors can learn from each other's experiences as well as from staff suggestions for handling problems.

Support by teachers and administrators is essential for a tutoring program to succeed in the long run. Lippitt lists typical problems and concerns and recommends openly discussing them beforehand. Parents and the community should also be informed. Teachers who understand and believe in a program's potential to help their children will generally be firm supporters.

Decades of research have established that well-planned peer tutoring programs can improve student achievement and self-esteem as well as overall school climate. The wide variety of programs available should enable every interested school district to find a format that suits its needs.

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ERIC Clearinghouse on Teaching and Teacher Education

Considerations in Teaching Culturally Diverse Children

by Carmen Coballes-Vega

Recent projections (Griffith, Frase, and Ralph, 1989) have estimated that minorities in the United States will comprise one-third of the population; in some metropolitan areas African Americans and Hispanics will constitute a majority of the school-age population. In other communities, there are concentrations of school-age children from both Native American and Asian backgrounds with growing numbers of immigrants and refugees from Asia, Latin America, and the Caribbean (First, 1988). Currently, the majority of prospective teachers are White females (American, 1990), which stands in sharp contrast to the backgrounds of the students they will teach. This Digest examines considerations within preservice teacher education programs to address this challenge.

Background

There has been growing concern about how best to meet the educational challenge of learner diversity. Some researchers (National, 1991) have raised questions about the efficacy of teacher education programs which attempt to deal with learner diversity and which explore changes in prospective teachers' roles in modifying instruction. However, other researchers (i.e., Banks and Banks, 1989; Bennett, 1990; Sleeter and Grant, 1988) have recommended that the following be included within the teacher education curriculum:

- at least one course in multicultural education that takes into consideration the needs of all students;
- information about the history and culture of students from a wide number of ethnic, racial, linguistic, and cultural backgrounds;
- content about the contributions made by various groups;
- information about first- and second-language acquisition and effective teaching practices for working with students from limited English proficient (LEP) backgrounds; and
- field experiences and student teaching opportunities with students from varying backgrounds.

Courses in Multicultural Education

Currently there are multicultural education courses across the United States which are used in teacher preparation programs. The issues raised with respect to educational equality, equity, and social justice within a historical, legal, and sociopolitical context are central to the content. For many prospective teachers, the information provided in these courses is new and has not been discussed in general education courses or in preservice education courses. This background is important for the teacher to have in order to understand the rights and responsibilities of students as well as of teachers and parents. While having this information may not eliminate the stereotypes or misconceptions that teachers have about groups, it can serve to inform more directly future instructional decisions which they will make. For example, while it may not eliminate some gender beliefs, being aware of the attitudes and perceptions a teacher has about girls and boys and mathematics may diminish sex-segregated groups within the class during math activities.

Information About History and Culture

Information provided on the history and culture of future students can be a valuable resource for the prospective teacher when making decisions about students, adapting pedagogy, and involving parents. Successful models of open communication between diverse teachers, students, parents, other school personnel, and community liaisons can also be incorporated into teacher education courses.

Many African Americans, Hispanics, Native Americans, and Asian Americans have had educational experiences where they suffered as a result of negative social, economic, and educational policies (Banks and Banks, 1989). Practices such as referral of these students in disproportionate numbers to special education classes continue even today. With additional information, teachers may be able to ask further questions or request technical assistance in providing appropriate instruction before a referral is considered.

Some researchers (Bennett, 1990; First, 1988) have focused on the miscues which occur between teachers and students based on misinterpretations and generalizations made about cultural background. Student behaviors such as attention-getting strategies, ways of responding to questions, and ways of interacting are examples of actions which are influenced by cultural background. For some African American, Native American, and Hispanic students, cooperative grouping instructional activities may be better because they parallel the context for learning found in their cultures. Teachers can consider modifying traditional direct instruction to include other types of instruction from which all students can benefit.

Another classroom factor to be considered is the extent to which the literacy tradition of the home and culture closely resembles that of the school. If there is a strong emphasis in the culture on the oral tradition, then knowledge may be transmitted through "verbal usage and memorization" as in the cases of Moroccan and Western Samoan cultures (Field and Aebersold, 1990). This is different from the highly literate tradition in the United States and presents problems if the teacher expects certain types of classroom interaction based on reading text.

The cultural values transmitted by parents can be markedly different from those the children encounter in the schools. For example, among some Southeast Asian parents the individual's role within the family is of primary importance; personal desires are secondary (Morrow, 1989). Thus, for these students a decision to care for younger siblings while parents work might come before a decision to complete a school assignment. Understanding child-rearing practices, family relationships, and interpersonal communication is critical in understanding parents. Communication can be increased by using the home language for conferences and providing written notices in both languages for those parents who have difficulty with English. Community liaisons, aides, translators, or volunteers who are bilingual can assist in this area. The teacher can solicit more participation and cooperation from parents if the message is communicated appropriately.

Integration of Contributions

Modeling the integration of content about the contributions of various groups is vital for prospective teachers because it can demonstrate effective ways of using this information within the classroom. For many students this may be the first opportunity they have had to be exposed to others' national heroes, heroines, events, notable contributions, and theories.

Language Background

In working with students from varying ethnic and cultural backgrounds, prospective teachers must recognize that many will come from diverse language backgrounds. While there may be a group which can generally be described as "Southeast Asian," these students come from different countries and also speak different languages.

The incorporation of information about first- and second-language acquisition and effective teaching practices for working with students from LEP backgrounds is critical for teacher planning. Information about the language strengths and needs of students will be helpful for working with special personnel such as bilingual teachers and English-as-a-second-language teachers.

Knowledge about the student's use of both languages can assist the teacher in the development of reading, writing, listening, and speaking skills activities. The teacher may know that one student has contact with English-speaking peers outside of school and also reads material in English at home. Another student may socialize primarily with students from his/her own language background and read materials at home in the native language. This information can be helpful to the teacher in setting up homework assignments as well as in-class interactions with other students (Hudson and Fradd, 1990; Cheng, 1987).

Field Experiences

There is a need for field experiences and student teaching opportunities to work with diverse students. Prospective teachers can benefit interacting with these students before they enter the field and while they are still able to dialogue with teacher educators and teachers in the field. It can be a time to design instructional activities which can be applied within a variety of contexts and with different learners. With changes in school populations projected within this decade, it is important for prospective teachers to also have contact with the populations which they will ultimately serve.

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ERIC Clearinghouse on Counseling and Student Services

Counseling Using Technology With At-Risk Youth

by John A. Casey

Expanded Use of Technology in Counseling

Counselors and related human service professionals are increasingly utilizing computer technology in their counseling with at-risk youth. While early use of computers for testing, administration, career, and personal counseling relied primarily upon counseling-specific software, more recent adaptations of noncounseling software for counseling purposes are leading toward successful interventions with at-risk populations.

Who is "At-Risk?"

The literature presents a range of definitions for "at-risk" youth. Some authors identify risk factors with predictive validity for such unwanted behaviors as truancy, dropping out of school, or criminal activity. Others contend that all youth are potentially at risk of not achieving their potential. The label is often assigned to both gifted and remedial learners who do not fit the mainstream school population. The computer strategies discussed in this document usually have applications to all of these populations.

Adapting Software for Personal Counseling

The personal counseling process has been described as having at least six stages: (1) relationship building, (2) needs assessment, (3) goal setting, (4) intervention, (5) transfer and maintenance of newly acquired skills, and (6) termination with evaluation. Counselors report promising use of technology in three of these domains: relationship building, needs assessment, and intervention.

Relationship Building

Counselors and related professionals have noted the attraction of home entertainment software, e.g., Nintendo video games, to numerous at-risk youth. These professionals have infused video games into the relationship-building stage of the counseling process through several strategies.

- In Lancaster, Texas, children resistive to counseling have found The Print Shop a vehicle for developing rapport and expressing their feelings (Henderson, 1989).
- In Long Beach, California, reluctant learning disabled clients become engaged with the counselor through games of familiarity and attainable success (e.g., Wheel of Fortune, MacConcentration).
- In Guerneville, California, students and counselors speaking different languages find common enthusiasm with nonverbal computer games through the counselor (e.g., Brickles, Hot Air Balloon).

Needs Assessment

Counselors are reporting sporadic yet promising uses of computer software for assessing client need. One example:

- In Stratford, Connecticut, with boys ages 10–17, Margolies (1991) reports we can observe much about the child: "their level of dependency on the therapist, fears, blocking points, approach to and length of play, ability to appreciate or elaborate on fantasy, sense of humor. Other games or drawing programs are used as projective tools..."

Intervention

A variety of interventions are being implemented by counselors with at-risk youth.

- In Rohnert Park, California, ninth graders identified as having the "highest risk" of dropping out are paired with graduate counseling students who together write poetry on word processors, create art on Kid Pix, or evaluate a variety of low cost shareware games. They also visit a nearby elementary school where the older student tutors a first grader on easy but motivating learning games (Casey and Ramsammy, 1992).
- In West Anchorage, Alaska, at-risk ninth graders are trained as computer resource tutors for other teachers, students, and staff (Orloff, 1991).
- In Palo Alto, California, a counselor reports empowerment through both "playful" software such as Jam Session (where students can play like MTV musicians) and more serious software such as spell and grammar checkers on word processing documents (Orloff, 1991).

Prevention Through Groups, Classroom Guidance, and Consultation

Professionals are discovering that software can be adapted for prevention through groups, classroom guidance, and consultation with teachers on curriculum and classroom management.

- Using an overhead projection of the computer screen, students develop cooperative learning, positive interdependence, group problem solving and social skills by playing, as a group, such software as Oregon Trail or Carmen Sandiego.
- In Greenwood, Mississippi, kindergarten use of technology "encourages students to become their own problem solvers, ...thinking and discovering answers on their own" (Goal, 1992).
- In Peach Springs, Arizona, dropout rates among Hualapai Indians have plummeted with the infusion of videodiscs, interactive video, and satellite communication into the curriculum without counselors.
- In numerous locations, counselors are consulting with teachers to develop intergenerational communication between at-risk youth and senior citizens, through both live computer activities and electronic mail (Henderson, 1989).

Why Technology?

A variety of advantages are associated with the use of technology in counseling with at-risk youth. As earlier noted, youth usually have positive associations with video game technology; covert learning can and does take place without the normal resistance to overt educational approaches. Moreover, they represent multisensory approaches to learning using visual, auditory, and kinesthetic learning modalities.

Individualized learning can set realistic goals, and encourages retrial of failures without group embarrassment.

Gifford (1991) lists seven attributes that make video games both fun and effective learning tools:

- *Free Play (Creativity)*: Electronic games are not tied to the limitations of space, time, or gravity in the way that mechanical toys are. Freed from these constraints, kids can exercise their fantasies without regard to real-world boundaries.
- *Microworlds:* Computers allow us to move with ease between electronic "microworlds" from one graphical environment to another. The exhilaration of multimedia world-hopping contrasts sharply with the static feeling of conventional classrooms.
- *Instant Replay Encourages Risk Taking:* Computers can provide an instant replay of students' performances, allowing them to study, edit, or try again in a safe environment for risk-taking.
- *Mastery:* Even when kids are struggling to learn a complex computer game, they usually feel they are in control. When the worst happens, they can always shut the machine off. The feeling of control is encouraged by the ease with which players can repeat an activity until it has been mastered.
- *Interaction:* Kids tend to experience computers as partners in learning. They relish this nonhierarchical relationship in which the roles of teacher and student are blurred or altered.
- *Clear Goals:* Children in the classroom cannot always see the point of learning math, science, or social studies. When they play electronic games, they are usually working toward a clear objective—making a rescue, unlocking a door, unearthing hidden treasure. Compelling goals give game players high levels of motivation.
- *Intense Absorption:* Short attention spans and poor impulse control frequently disappear with effective computer interventions, supporting the notion changing the environment, not the child, can support individual success.

Considerations

As with any emerging counseling tool, numerous pitfalls exist in applying technology to work with at-risk youth. These include:

- *Unappealing Software*—rote learning and other overtly educational software are usually met with yawns.
- *Waiting Too Long*—older computers, like Apple II's, or too many students for one computer create more problems than they solve.
- *Inadequate Training*—constrained budgets limit training opportunities, but successful counselors work in concert with other technology-literate staff.
- *Depersonalization*—the focus should be on the client first, the technology second. If the client or counselor lose this priority, problems may be exacerbated by the technology.

Additional ethical, moral, and practical issues associated with technology and counseling are discussed by Walz, Gazda, and Shertzer (1991).

Discussion and Summary

Current trends in technological developments suggest that home entertainment video games and educational learning software are on convergent paths. Astute educators have identified these technologies as effective for student motivation and have integrated them with traditional curricula to reduce at-risk behavior. Counselors who identify and implement effective uses for technology, including CD-ROM and video laserdiscs, are likely to maintain their positions during the current educational restructuring movement.

Additional research on outcome effectiveness, individual differences in computer motivation, and other aspects of this emerging field are needed. New adaptations, such as infusion into family therapy and other counseling services, remain equally unexplored.

Neverthcless, early signs of success are encouraging and challenge the counselor to remain current with new technologies and their potential for adaptation to counseling with at-risk youth.

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ERIC Clearinghouse on Rural Education and Small Schools

Migrant Students Who Leave School Early: Strategies for Retrieval

by Anne Salerno

This Digest examines the extent of early school leaving among migrants, conditions that precede early school leaving, common features of programs that work to retrieve dropouts, and illustrative programs that exhibit these features. The discussion of the predicament of migrant students, however, recognizes that retrieval programs must be adapted to local contexts.

The Importance of Dropout Retrieval Among Migrant Students

Migrant students have the lowest graduation rate in the public school system (Johnson, Levy, Morales, Morse, and Prokop, 1986). And in recent years, the educational system has rightly paid a good deal of attention to techniques for preventing early school leaving. However, because so many migrant youth leave school before they graduate, prevention is just part of the effort required to ensure that migrant students complete high school. "Dropout retrieval," the effort to identify and help dropouts complete high school diplomas, is the other part.

Migrant youth are difficult to retrieve, however, because of their mobility, comparatively greater need for financial support, and early family responsibilities. Strategies for meeting this challenge must include ways to accommodate the reality of migrant students' circumstances.

The Extent of Dropping Out Among Migrants

The conditions that make dropout retrieval difficult also make difficult the collection of data about the extent of the problem. Two studies, however, corroborate the fact that the dropout rate for this group remains very high.

The Migrant Attrition Project conducted a study for the U.S. Department of Education that showed a 45 percent national dropout rate (Migrant Attrition Project, 1987), with a margin of error of ±4 percent. A cooperative effort among states serving high proportions of migrant students, the study used a national, stratified random sample of 1,000 migrant students. The only comparable study, done 12 years earlier, had reported a 90 percent dropout rate. The more recent study concluded that, overall, strategies to support migrant students' efforts to complete high school were producing positive results.

Another study, conducted by the Interstate Migrant Education Council, analyzed data from the Migrant Student Record Transfer System for calendar year 1985. These national data show the sharp decrease in the number of fulltime equivalent (FTE) enrollments for migrant students in first versus twelfth grade. In first grade there were more than 35,000 FTE enrollments among migrant students, but in twelfth grade, there were fewer than 15,000 FTE enrollments. These findings suggest an attrition rate greater than 57 percent (Interstate Migrant Education Council, 1987).

Whatever the exact statistics might be, these data clearly suggest that though the dropout rate is declining, it remains high. The national rate for migrant students, in fact, still appears to be far higher than national rates for African American or Hispanic students generally (see Kaufman and Frase, 1990).

Conditions that Lead to Early School Leaving

Migrant students face the same risks as many impoverished, disadvantaged, or otherwise handicapped students. But, as a group, migrant students are more intensely at risk than the general population (Migrant Attrition Project, 1987).

Overage grade placement, for example, is among the most important of these conditions. Analysis of data from the Migrant Student Record Transfer System (MSRTS) indicates that, among current migrant students in grades 9–12, 50 percent were on grade level, 32 percent were one year below grade level, and 18 percent were two or more years below grade level. Thus, about half of all migrant students might reasonably be considered to be at risk of leaving school early (Migrant Education Secondary Assistance Project, 1989).

Poverty is another major condition that influences migrants to leave school early. De Mers (1988), for example, reports that the average income for a migrant family of 5.3 members was about $5,500 in 1988. The contribution of another working family member can help provide necessities the family would otherwise lack. Moreover, many migrant youth start families of their own as adolescents, a condition that provides a further incentive to leave school early. The lack of adequate child care services can keep such students from participating in retrieval programs.

Interrupted school attendance and lack of continuity in curriculum from that interruption of studies are additional conditions that raise the dropout rate for migrant students. These conditions mean that migrant students often do not accumulate the credits they otherwise would.

Inconsistent recordkeeping in the schools seems to contribute to this problem. Migrant students rely on MSRTS updates so that the record of credits they have already earned are accessible to schools they will attend in the future. If schools fail to enter credits earned by migrant students, school completion is more difficult than it need be. During the 1987–88 regular term school year, for example, only 22 percent of the current migrant students in grades 9–12 who (1) changed school districts and also (2) attended two or more schools carried full or partial credit on their MSRTS records (Migrant Education Secondary Assistance Project, 1989).

Limited English proficiency is also a major condition of risk (so far as completing school in the U.S. is concerned). The first language of many migrant students is not English. For example, Hispanic students comprise 75 percent of all migrant students (Salerno, 1989). Among these, many are foreign-born and have had little or no schooling in their native countries. Mobility and school interruptions compound the problem.

Effective Features of Dropout Retrieval Programs

Salerno and Fink (1989) noted a number of program features that research has found benefit migrant youth. The characteristics are classified according to type of service:

- *Academics*—basic skills, enrichment (e.g., field trips and cultural events), English-as-a-Second-Language (ESL) instruction, placement options (home-study, residential, or commuter programs), and GED preparation;
- *Vocational training*—career awareness, job placement, post-employment counseling, and vocational courses; and
- *Support services*—child care, counseling and referral to social service agencies, self-concept development, stipends, and transportation.

Examples of Programs that Address the Needs of Migrant Students

Not every program needs to incorporate each of the features listed above. To help guide efforts to improve programs or devise new ones, however, administrators and teachers can assess the needs of the students they serve against these features. Illustrative applications in existing programs are described below.

The *High School Equivalency Program* (HEP), funded by the Migrant Education Office of the U.S. Department of Education, provides migrant dropouts the chance to prepare for the GED high school equivalency diploma in a residential program on a college campus or in a commuter program. The 23 HEPs located across the nation offer counseling, tutoring, career information and job placement, transportation to and from the program site, and enrichment activities. Program cycles average 8 to 12 weeks. Some sites, moreover, offer GED instruction in Spanish. In residential programs, students receive room and board. In addition, they get small stipends during the program cycle.

The *Migrant Dropout Reconnection Program* (MDRP), based in Geneseo, New York, offers referral services to 16- to 21-year-old migrant dropout youth. A national hotline (1–800/245–5681 nationwide; 1–800/245–5680 in New York state) reconnects them to educational or vocational programs. Youth receive a monthly bilingual newsletter, *Real Talk*, that encourages their reentry into a program. The newsletter provides information about health, career, and educational opportunities. It also features role models and youths' own writing. Bilingual educational clipsheets are also available to *Real Talk* readers. The personal touch through hotline calls with counselors and follow-up letters gives many migrant youth the support they need to continue their schooling. A component of this program is GRASP (Giving Rural Adults a Study Program), a home-study GED course. Lack of transportation and child care, coupled with rural isolation and negative school experiences, make home-study both appealing to and feasible for migrant dropouts.

Family literacy programs are a much needed option for migrants. The Kenan Trust Family Literacy Project, based in Louisville, Kentucky, and Migrant Education-funded Even Start, with programs in the states of Louisiana, New York, and Oregon, are examples that address intergenerational literacy. La Familia, with programs in California and Arizona, meets the educational and social services needs of the whole family through GED and ESL instruction, citizenship/amnesty classes, and information.

The *Migrant Alternative School* in Yakima, Washington, provides GED preparation in both English and Spanish, ESL instruction, basic skills, vocational training, counseling for employment and college planning, and some credit-bearing classes for students planning to return to high school. Since about 80 percent of the migrant students in this program have been educated in Mexico, the program's emphasis on GED preparation in Spanish is essential.

Work-study could be an effective feature of dropout retrieval programs for two reasons. First, it can help students develop new occupational skills, and, second, it can couple education with the income these students need. Unfortunately, few work-study programs are available as yet. Although not specific to migrant students, Project READY of Bettendorf, Iowa, is an example of a work-study program that places students in a job in the community for at least 15 hours a week and in school one day a week to work toward a high school diploma.

Further information about these and other programs is available from a variety of sources, including the ERIC database. (ERIC/CRESS staff will perform free searches for anyone; simply call 1–800/624–9120 and ask for "user services.")

Overcoming Risk Among Migrant Students

Dropout retrieval programs need to take steps to overcome the risks their students continue to face. Students need a variety of support services and vocational training, in addition to academics. Features of programs like those described in this Digest could be adapted to the diverse circumstances of migrant life, nationwide.

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Goal 3: Student Achievement and Citizenship

By the year 2000, American students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

Objectives

- The academic performance of elementary and secondary students will increase significantly in every quartile, and the distribution of minority students in each level will more closely reflect the student population as a whole.
- The percentage of students who demonstrate the ability to reason, solve problems, apply knowledge, and write and communicate effectively will increase substantially.
- All students will be involved in activities that promote and demonstrate good citizenship, community service, and personal responsibility.
- The percentage of students who are competent in more than one language will substantially increase.
- All students will be knowledgeable about the diverse cultural heritage of this nation and about the world community.

ERIC Clearinghouse for Social Studies/Social Science Education

Achievement of Goal Three of the Six National Education Goals

by John J. Patrick

In February 1990, the President and state governors proclaimed a set of six national education goals to prompt profound improvements in schools and student achievement by the year 2000. These six goals reflect widely held concerns that most Americans have not been receiving the kind of education they need to meet the challenges of twenty-first century life. This Digest addresses Goal Three of the six national goals: "By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so that they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy."

Progress Toward Achievement of Goal Three: How Far Do We Have to Go?

The academic achievement of secondary school students in the United States tends not to meet the high expectations of Goal Three of the National Education Goals. Summaries of student achievement in core subjects, measured by the National Assessment of Education Progress (NAEP), reveal that a majority of students are *not* developing intellectual capacities necessary for democratic citizenship, lifelong learning, and productive employment in the economic system (Mullis, Owen, and Phillips, 1990 and U.S. Department of Education, 1991).

The recently issued summaries of NAEP studies on various core subjects reveal important findings relevant to Goal Three. Most students, for example, lack ability to perform high-level cognitive operations in core subjects.

- Only seven percent of 17-year-old mathematics students are able to solve multiple-step problems involving variables and solve linear equations.
- Only nine percent of 17-year-old students can use scientific knowledge to infer relationships and draw conclusions.
- Only five to seven percent of 17-year-old students can synthesize data from a variety of reading materials and read analytically or critically.
- Only five percent of U.S. history students can interpret detailed information and related ideas from multiple sources to make connections between various events and factors.

The NAEP studies also reveal serious gaps in students' knowledge of core subjects.

- Mullis, Owen, and Phillips (1990, 9) report that "only small proportions of students appear to develop specialized knowledge needed to address science-based problems, and the pattern of falling behind begins in elementary school."
- Less than 10 percent of 17-year-old students appear to have developed both an understanding of key ideas in core subjects (e.g., mathematics, science, literature, history, geography, and civics) and the ability to apply these ideas to completion of high-level cognitive tasks.
- Less than half of 17-year-old students (41 percent) can locate, comprehend, summarize, and explain complex information in text.
- High school students did "significantly less well" in civics in the 1988 national assessment than their 1982 counterparts (NAEP, 1990, 13). Large numbers of students appear to lack knowledge and skills usually associated with responsible citizenship in a constitutional democracy.

The United States ranks near the bottom among economically developed countries on international assessments of students' knowledge of mathematics and science. The gap in achievement between American students and their counterparts in other countries increases as students move through the grades in school. Fifth-grade students in the United States score near the median among their counterparts in the international assessments; eighth-grade students fall markedly below the median; and twelfth-grade students rank near the bottom in comparison to students from the other countries (Darling-Hammond 1990, 287-288).

American respondents also ranked near the bottom in a recent international assessment of geographical knowledge (Salter 1990, 8). These results are consistent with various other reports of geographic illiteracy among large numbers of American students (Stoltman 1990, 39-46).

If by the year 2000 American students are to leave school "having demonstrated competency in challenging subject matter"—the core subjects of the school curriculum—then large improvements in teaching and learning must be accomplished. The current levels of student achievement fall far short of the standard implied by National Education Goal Three.

Factors Associated with Higher Levels of Student Achievement

The various NAEP surveys of achievement in the 1980s included information on background variables related to education. These data can be related to student performances on the NAEP instruments to reveal factors that are associated with higher levels of student achievement. For example, better performances in the NAEP surveys of achievement have been associated with the following factors: high educational attainment of parents, a home environment where reading and discussions of ideas are valued, limited television viewing, significant amounts of time spent on homework assignments, and a stable family structure.

The NAEP reports also suggest relationships between systematic, substantial, and stimulating exposure to core subjects and higher scores on tests of achievement in these academic disciplines. Students who reported more opportunities to study key topics and ideas in core subjects made higher scores on the NAEP tests of achievement. Further, students who reported an early start in studying core subjects, through substantial exposure to these content areas in elementary school, tended to perform better in the NAEP surveys.

Another factor associated with higher achievement was active learning. Students who said that their teachers required them to interpret and apply knowledge to the completion of tasks

tended to score much higher on these assessments than did respondents who reported that their lessons were limited mostly to passive reception of knowledge through lectures and textbooks. For example, students in civics classes who reported participation in mock trials or simulated congressional hearings tended to perform at a higher level on the assessment of knowledge in civics than did students who were not involved in these kinds of active learning experiences (NAEP, 1990, 83-85).

A final factor associated with higher achievement levels in the NAEP surveys was use of electronic technology in teaching and learning the core subjects. For example, students with access to computers for problem solving tended to achieve a higher proficiency in mathematics than those who did not use computers.

What Can Schools Do to Improve Student Achievement in Core Subjects?

Several widely accepted ideas about what can be done to improve student achievement are presented in the following short list. These ideas are prominent examples, among many others, in the growing literature on reform and restructuring of education in schools.

- Increase the quantity and quality of challenging subject matter that all students are required to study in elementary and secondary schools, and encourage more students to pursue advanced coursework in the core subjects (e.g., English, mathematics, science, history, geography, and civics).
- Increase the amount of time in which all students, at all levels of schooling, are systematically engaged in studying and learning the core subjects.
- Provide regular opportunities for in-depth investigations of key topics and problems as an alternative to typical superficial surveys of subject matter.
- Emphasize active learning, thinking, and doing in response to challenging assignments, in contrast to passive reception of knowledge transmitted via lectures and textbooks.
- Develop cognitive skills and processes, such as writing, by frequent and systematic practice that involves teaching and learning of underlying processes, such as the dynamics of written composition.
- Use multiple resources and media for teaching and learning—such as electronic technology, primary documents, classic works of literature, and science laboratories—instead of relying upon textbooks as the primary or exclusive tool of instruction.
- Establish high expectations and common standards for student performance based on the assumption that virtually all students can learn at high levels.
- Create a school climate that is conducive to student achievement through the exercise of strong instructional leadership and maintenance of a safe, stable educational environment.
- Involve parents in the process of education as monitors of homework assignments, encouragers of academic achievement, and reinforcers of school rules.
- Develop instruments for assessing student achievement that require performance of high-level cognitive skills and processes—the application of knowledge to complex problems and issues—instead of testing that merely emphasizes recall of discrete information.

What Can Parents Do to Improve Student Achievement in Core Subjects?

Parents and guardians can help their children to learn core subjects by doing certain things at home.

- Monitor homework assignments to make certain that they are completed satisfactorily.
- View national and international news at least twice a week with children and use a map to locate and discuss the places in the news.
- Encourage family viewing of television programs with academic content and participate with children in post-program discussions of themes and issues.
- Provide learning resources in the home—books, magazines, and maps—and read and discuss them with children.
- Guide children in productive use of free time, which should include monitoring and limiting their viewing of television.
- Seek opportunities to examine and discuss school curriculum-related ideas with children.
- Encourage school teachers and administrators to establish clear and challenging standards about what all students should know and be able to do in all core subjects of the school curriculum.

Note: This ERIC Digest is a modified and up-dated version of ERIC Digest EDO-SO-91-2, which was issued in April 1991.

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ERIC Clearinghouse on Elementary and Early Childhood Education

Nongraded and Mixed-Age Grouping in Early Childhood Programs

by Lilian G. Katz, Ph.D.

Interest in the potential benefits of mixed-age grouping in preschools and the early primary grades has increased steadily in recent years (Willis, 1991). Two large-scale mandates to "ungrade" the first years of schooling are receiving a great deal of attention from educators. One is the Kentucky Education Reform Act of 1989 and the other is the provincial mandate of British Columbia in Canada for ungraded classes in the primary years. These initiatives are likely to be followed in several states where similar efforts are under consideration (e.g., Oregon).

Among the reasons behind the trend toward mixed-age grouping are widespread concern about the high proportion of young children who are retained in the early grades, increasing recognition that grade repetition does not help children overcome difficulties in meeting narrow and specific grade achievement expectations, attempts to implement developmentally appropriate teaching and curriculum practices in the early grades, and growing awareness of the potential benefits of cross-age interaction to intellectual and social development (Katz, *et al.*, 1990).

Confusion of Terms

A confusing variety of terms is used in discussions of theoretical and practical issues surrounding age grouping practices. Sometimes the terms *ungraded, nongraded, continuous progress, mixed-* or *multi-age grouping* are used interchangeably (Willis, 1991). The terms *split* and *blended classes* are also used. The mixed-age grouping widely practiced in Britain during the so-called Plowden years was often called *family grouping* or *vertical grouping*. The purpose of this Digest is to examine the terms and distinctive connotations of the terms that may have important implications for teaching and the curriculum. Broad definitions are suggested under the following four headings:

Nongraded or Ungraded Grouping

The terms *nongraded* and *ungraded* typically refer to grouping children in classes without grade-level designations and with more than a one-year age span. When these terms were introduced by Goodlad and Anderson (1959), the primary rationale was to increase the heterogeneity of class composition and thereby liberate teachers and children from rigid achievement expectations linked to a pupil's age. However, Goodlad and Anderson found that implementation of nongraded or ungraded classes in the late 1950s and thereafter tended to result in grouping children homogeneously for instruction on the basis of ability and achievement level, regardless of their ages. Studies of these programs reveal two significant misunderstandings: "The first is the failure to understand that nongrading is a scheme for organizing schools vertically. The second is the false assumption that a scheme of school reorganization automatically changes other educational practices" (Goodlad and Anderson, 1963; Goodlad and Anderson, 1987; Shinn, 1967).

In many implementations of nongradedness, children in a class or across classes are placed in regular or temporary groups for specific instruction in basic skills regardless of their age. In this approach to nongradedness, the main goal is to increase the homogeneity of ability of instructional groups rather than the interaction across ability groups. In other words, the terms *nongraded* and *ungraded* refer to grouping practices in which ages are mixed, but the primary purpose is to homogenize groups of children for instruction on bases other than age.

Combined Grades

Combined classes include more than one grade level in a classroom. Such groupings are sometimes referred to as *split* or *blended* or *double year* classes. Combined classes usually include the required curriculum for each of the two grades represented, although some class activities may be conducted with children of both grades combined. This kind of grouping occurs frequently in small schools, and occasionally in larger ones when the number of children in different age cohorts fluctuates. The main goal of these kinds of classes appears to be to maximize personnel and space resources rather than to capitalize on the diversity of ability and experience in the groups with mixed ages.

Continuous Progress

This term has a variety of meanings, but generally implies that children remain with their classroom peers in an age cohort regardless of whether they have met or surpassed prespecified grade-level achievement expectations. The *continuous progress* term is usually associated with a strong emphasis on individualizing the curriculum so that teaching and learning tasks are responsive to the previous experiences and rates of progress of each child regardless of age. This practice is sometimes called *social promotion*. The main rationale for the practice is that separation from one's age cohort may stigmatize a child. Like the nongraded and ungraded approaches, programs focused on continuous progress are not primarily aimed at maximizing the educational benefits of children of different ages and abilities learning together. Rather, the goal is to let children progress according to their individual rates of learning and development without being compelled to meet age-related achievement expectations.

Mixed-Age or Multi-Age Grouping

This term refers to grouping children so that the age span of the class is greater than one year, as in the nongraded or ungraded approach. The terms *mixed-age* and *multi-age grouping* are used to emphasize the goal of using teaching and curriculum practices that maximize the benefits of interaction and cooperation among children of various ages. In mixed- or multi-age classes, teachers encourage children with different experiences and stages of development to turn to each other for help with all aspects of classroom activity, including the mastery and application of basic literacy and numeracy skills. However, in mixed-age classes, teachers use small temporary subgroupings of children who need the same kinds of instruction to help them acquire basic skills.

Implications of Each Grouping

Although the distinctions between the grouping practices implied by the terms defined above may seem slight, they have significant implications for practice. The ungraded or nongraded approach acknowledges that age is a crude indicator of what children are ready to learn. It emphasizes regrouping children for instruction on the basis of perceived readiness to acquire knowledge and skills, and not according to age. It does not emphasize educational benefits of a learning environment in which children at different knowledge and skill levels work together. In other words, the main goal implied by the term *nongraded* is that of homogenizing children for instruction according to achievement instead of age, even though this was not the original rationale for introducing the term (Lewis, 1969).

Several kinds of combined grades and continuous progress practices do not set out to increase the sense of family within the class or encourage children with different levels of knowledge and experience to learn together. In contrast, *mixed-age grouping* involves class composition that takes advantage of the heterogeneity of experience, knowledge, and skills in a group of children with an age range of more than one year (Katz, *et al.*, 1990). Research on cross-age interaction in spontaneous, experimental, and educational settings indicates that a variety of developmental and educational benefits can be obtained from such interaction, especially in the early years (Balaban, 1991). Elkind (1989) recommends mixed-age grouping as a developmentally appropriate alternative to a rigid lock-step curriculum and as a way to strengthen teachers' sensitivity to the normal variability of children's developmental trajectories in a single age group.

Mixed-age grouping can provide older children with the opportunity to be helpful, patient, and tolerant of younger peers' competencies, and thus give them some of the desirable early experiences of being nurturant that underlie parenting and helping others who are different from oneself. Exposure to older children as nurturers provides young recipients with models of behavior they can emulate when they become the older members of a group. Research on cross-age interaction, peer tutoring, and cooperative learning indicates that an age range of greater than one year can provide a level of intellectual stimulation that supports the development of both intellectual and academic competence. This sort of learning environment is also likely to generate greater social benefits than same-age groups, especially for children who are at-risk in particular social development categories (Katz, *et al.*, 1990).

Implications for Practice

Grouping children in classes with a wide age range cannot by itself yield the benefits implied by the research on cross-age interaction and multi-age grouping. If these benefits are to be realized, the curriculum must be modified to provide a variety of activities in which children work together on projects and other activities, preferably in small multi-age groups in which each individual can contribute in different ways to the total effort (Katz and Chard, 1989; Blumenfeld, *et al.*, 1991).

Teaching strategies likely to result in children's realizing the benefits of a wide age range include encouraging more knowledgeable and experienced children to assist less able ones, regardless of age, as needed; encouraging younger children to request assistance from more competent classmates; and encouraging older and more experienced children to take responsibility for helping the others.

Each grouping arrangement has its risks. A risk of homogeneous age grouping is that some children will become acutely aware of failing to live up to normative expectations for behavior and achievement for their age. Risks of mixed-age grouping are those of younger children becoming burdens to older ones and being overwhelmed by more competent classmates. Teachers must keep in mind the risk of overlooking older and more experienced children's need for challenge, but this is the case in every class, even when student age is not a factor. Research on mixed-age grouping suggests that in spite of its risks, its potential advantages outweigh its disadvantages (Katz, *et al.*, 1990).

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ERIC Clearinghouse on Elementary and Early Childhood Education

The Portfolio and Its Use: Developmentally Appropriate Assessment of Young Children

by Cathy Grace

The subject of children's achievement and performance in school, and even before school, has received increasing public attention during the latter 1980s and early 1990s. A general consensus for assessment reform is reflected by the volume and variety of professional literature on various methods of assessment and the number of states that are seeking alternative means to evaluate students.

Educators use the term *authentic assessment* to define the practice of realistic student involvement in evaluation of their own achievements. Authentic assessments are performance-based, realistic, and instructionally appropriate (Pett, 1990). One method of authentic assessment is to assemble and review a portfolio of the child's work.

The portfolio is a record of the child's process of learning: what the child has learned and how she has gone about learning; how she thinks, questions, analyzes, synthesizes, produces, creates, and how she interacts—intellectually, emotionally and socially—with others. Arter and Spandel (1991) define the portfolio as a purposeful collection of student work that exhibits to the student, or others, her efforts or achievement in one or more areas. According to Meisels and Steele (1991), portfolios enable children to participate in assessing their own work; keep track of individual children's progress; and provide a basis for evaluating the quality of individual children's overall performance. Wide use of portfolios can stimulate a shift in classroom practices and education policies toward schooling that more fully meets the range of children's developmental needs.

Components of the Young Child's Portfolio

The portfolio can include work samples, records of various forms of systematic observation, and screening tests. Engel (1990) emphasizes that "work samples meet the need for accountability while recognizing and supporting individual progress." They keep track of a child's progress—in other words, they follow the child's success rather than his failure. Teachers and parents can follow children's progress by reviewing children's writings, drawings, logs of books read by or to them, videos or photographs of large projects, tape recordings of the children reading or dictating stories, and so forth.

During systematic observation, young children should be observed when they are playing alone, in small groups, in large groups, at various times of day and in various circumstances. Systematic observation must be objective, selective, unobtrusive, and carefully recorded (Bertrand and Cebula, 1980). Ideally, a portfolio includes observations in several or all of the following forms:

Anecdotal records. Anecdotal records are factual, nonjudgmental notes of children's activity (Northwest Regional Educational Laboratory, 1991). They are most useful for recording spontaneous events. They should be cumulative, revealing insights about the child's progress when they are reviewed sequentially.

Checklist or inventory. The checklist or inventory is one of the easiest tools for recording children's progress. It should be based on instructional objectives and the development associated with the acquisition of the skills being monitored. In general, observations should be based on regular activities, not on specially designed or contrived activities.

Rating scales. Rating scales are appropriately used when the behavior to be observed has several aspects or components, such as a child's success at following directions in different situations.

Questions and requests. One of the most effective and easiest means of gathering information is to ask direct, open-ended questions of individual children. Open-ended requests such as, "I'd like you to tell me about this," elicit samples of the child's expressive language ability. Asking children about their activities also often yields insights into why they behave as they do.

Screening tests. Screening tests are used to help identify the skills and strengths that children already possess, so that teachers can plan meaningful learning experiences for their students. Findings of screening tests and developmental scales should be considered with work samples and other, more subjective, material that the teacher assembles in portfolios. The assessment information revealed by such instruments is not appropriately used for grading, labeling, grouping, or retaining children.

Portfolio Authenticity

Decisions about what items to place in a portfolio should be based on the purpose of the portfolio. Without a purpose, a portfolio is just a folder of student work. The portfolio exists to make sense of children's work, to communicate about their work, and to relate the work to a larger context (Arter and Paulson, 1991; Paulson and Paulson, 1991). According to Murphy and Smith (1990), portfolios can be intended to motivate students, to promote learning through reflection and self-assessment, and to be used in evaluations of student's thinking and writing processes.

In early childhood education, portfolios should contain a statement of purpose and a wide variety of work samples, including successive drafts of work on particular projects.

Children should be involved in choosing items to preserve so that they can analyze their work themselves.

Using the Portfolio in Evaluation

The material in a portfolio should be organized by chronological order and category. Since all information in the portfolio is dated, arranging the work samples, interviews, checklist, inventories, screening test results, and other information should be simple. Meisels and Steele (1991) suggest further organizing the material according to curriculum area or category of development (cognitive, gross motor, fine motor, and so forth).

Once the portfolio is organized, the teacher can evaluate the child's achievements. Appropriate evaluation always compares the child's current work to her earlier work. This evaluation should indicate the child's progress toward a standard of performance that is consistent with the teacher's curriculum and appropriate developmental expectations. Portfolios are not meant to be used for comparing children to each other. They are used to document individual children's progress over time. The teacher's conclusions about a child's achievement, abilities, strengths, weaknesses, and needs should be based on the full range of that child's development, as documented by the data in the portfolio, and on the teacher's knowledge of curriculum and stages of development.

The use of portfolios to assess young children provides teachers with a built-in system for planning parent-teacher conferences. With the portfolio as the basis for discussion, the teacher and parent can review concrete examples of the child's work, rather than trying to discuss the child's progress in the abstract.

Conclusion

Appropriate assessment of young children should involve the children themselves, parents, and teachers. The portfolio method promotes a shared approach to making decisions that will affect children's attitudes toward work and school in general. It frees the teacher from the constraints of standardized tests. Finally, using portfolios in assessment allows teachers to expand the classroom horizon and enlarge each child's canvas. Thus, the teacher can focus on the child and develop an intimate and enduring relationship with him.

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School Leadership and Student Motivation

by Ron Renchler

Much of the recent research on student motivation has rightly centered on the classroom, where the majority of learning takes place and where students are most likely to acquire a strong motivation to gain new knowledge. Making the classroom a place that naturally motivates students to learn is much easier when students and teachers function in an atmosphere where academic success and the motivation to learn are expected and rewarded. Such an atmosphere, especially when motivation to learn evolves into academic achievement, is a chief characteristic of an effective school.

How Can School Leaders Generate Student Motivation?

An environment that nurtures educational motivation can be cultivated in the home, in the classroom, or throughout an entire school. One of the most effective avenues for engendering student motivation is a school's culture. According to Deal (1987), school culture can be embodied and transformed through channels such as shared values, heroes, rituals, ceremonies, stories, and cultural networks.

Davis (1989) su . using a wide variety of activities and symbols to communicate divational goals. "Visible symbols," he says, "illustrate and confirm what is considered to be important in the school." He suggests using "school newsletters, statements of goals, behavior codes, rituals, symbols, and legends" to "convey messages of what the school really values." Staging academic awards assemblies, awarding trophies for academic success and displaying them in trophy cases, scheduling motivational speakers, and publicizing students' success can help them see that the desire to be successful academically is recognized and appreciated.

Klug (1989) notes that school leaders can influence levels of motivation by "shaping the school's instructional climate," which in turn shapes "the attitudes of teachers, students, parents, and the community at large toward education." By effectively managing this aspect of a school's culture, principals can "increase both student and teacher motivation and indirectly impact learning gains," Klug says.

Can School Restructuring Plans Be Used to Increase Student Motivation?

School administrators can take advantage of times of educational change by including strategies for increasing student motivation. Acknowledging that school restructuring is inevitable, Maehr (1991) challenges school leaders to ensure that "motivation and the investment in learning of students will be enhanced" as a result of school reform. School leaders have seldom "considered motivation vis-a-vis the current restructuring movement," he says, "and few have considered that the school as an entity in its own right, may have effects that supersede those of individual classrooms and the acts of individual teachers."

A positive "psychological environment" strongly influences student motivation, says Maehr. School leaders can create this type of environment by establishing policies and programs that:

- stress goal setting and self-regulation/management
- offer students choices in instructional settings
- reward students for attaining "personal best" goals
- foster teamwork through group learning and problem-solving experiences
- replace social comparisons of achievement with self-assessment and evaluation techniques
- teach time management skills and offer self-paced instruction when possible

How Does a School's Organizational Structure Influence Levels of Student Motivation?

School structures sometimes perpetuate feelings of low self-worth and low levels of motivation among students. "Teachers and parents worry that [students] are unmotivated," Raffini (1988) says. "In reality, they are highly motivated to protect their sense of self-worth." He suggests using individual goal-setting structures, outcome-based instruction and evaluation, attribution retraining, and cooperative learning activities to remove motivational barriers and redirect student behavior away from failure-avoiding activities in academic settings. Raffini describes how these four strategies can aid in promoting the rediscovery of an interest in learning:

- Individual goal-setting structures allow students to define their own criteria for success.
- Outcome-based instruction and evaluation make it possible for slower students to experience success without having to compete with faster students.
- Attribution retraining can help apathetic students view failure as a lack of effort rather than a lack of ability.
- Cooperative learning activities help students realize that personal effort can contribute to group as well as individual goals.

Several other researchers have criticized current instructional practices that sometimes hinder the development of motivation. Representative of these critics are Stipek (1988) and Eccles, Midgeley, and Adler (1984). Stipek makes a strong case for strengthening the degree of intrinsic motivation students feel for learning. While she does not argue for the complete elimination of extrinsic reward systems, she believes that "there are many benefits to maximizing intrinsic motivation and many ways to foster it." Challenging but fair task assignments, the use of positive classroom language, mastery-based evaluation systems, and cooperative learning structures are among the methods she suggests.

Eccles, Midgeley, and Adler argue that motivation would increase if students were asked to assume "greater autonomy and control over their lives and learning" as they proceed through higher grade levels. They note that this process rarely takes place in most schools and recommend that school leaders create an "environment that would facilitate task involvement rather than ego involvement, particularly as children enter early adolescence."

Does a School Leader's Motivation to Succeed Influence Student Motivation?

The work of Leithwood and Montgomery (1984) is especially helpful in understanding the connections between a school administrator's motivation and the level of motivation that exists among students.

According to Leithwood and Montgomery, school administrators progress through a series of stages as they become more effective. At their highest level of effectiveness, they come to understand that "people are normally motivated to engage in behaviors which they believe will contribute to goal achievement. The strength of one's motivation to act depends on the importance attached to the goal in question and one's judgement about its achievability. Motivational strength also depends on one's judgement about how successful a particular behavior will be in moving toward goal achievement."

Personal motivation on the part of the principal can translate into motivation among students and staff through the functioning of goals, according to Leithwood and Montgomery. "Personally valued goals," they say, "are a central element in the principal's motivational structure—a stimulus for action."

Establishing, communicating, and creating consensus around goals related to motivation and educational achievement can be a central feature of a school leader's own value system.

What Else Can School Leaders Do?

The complex array of problems that contribute to low levels of student motivation makes it impossible to devise a single, programmatic approach that will suddenly turn poorly motivated students into young people hungry for knowledge. Engendering student motivation is an ongoing process that requires creativity and energy. Grossnickle (1989) provides useful charts and inventories for monitoring motivation levels and lists many helpful ideas for promoting positive attitudes about motivation.

Here are a few other steps school leaders can take to improve student motivation at the school level:

- Analyze the ways that motivation operates in your own life and develop a clear way of communicating it to teachers and students.
- Seek ways to demonstrate how motivation plays an important role in noneducational settings, such as in sports and in the workplace.
- Show students that success is important. Recognize the variety of ways that students can succeed. Reward success in all its forms.
- Develop or participate in inservice programs that focus on motivation.
- Involve parents in discussing the issue of motivation and give them guidance in fostering it in their children.
- Demonstrate through your own actions that learning is a lifelong process that can be pleasurable for its own sake.

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Charting New Maps: Multicultural Education in Rural Schools

by Jenny Penney Oliver and Craig Howley

The United States is one of the most ethnically and culturally diverse nations in the world. This circumstance holds implications for education even in places where the local population is not very diverse, as often happens in rural areas (Spears, Oliver, and Maes, 1990). This Digest briefly reviews the concepts of "culture" and "multicultural education." It then considers the relevance of multicultural education for rural schools in which neither ethnic nor cultural diversity is great.

Culture and Multicultural Education

One view interprets culture as a sort of map that provides "standards for deciding what is...what can be...how to feel...what to do, and...how to go about doing" (Goodenough, 1963, p. 258-259). Culture comprises traditional ways of making sense of and conducting oneself in the world. It shapes unspoken values, as well as social institutions such as education, religion, marriage, and work (Gollnick and Chinn, 1990). Needless to say, cultures vary immensely. Culture applies to any group with coherent norms and traditions that help members engage the world around them. It governs how people share information and knowledge, as well as how they construct meaning. Because the United States is a multicultural society, citizens need to understand and respect one another, both as individuals and as members of culturally distinct groups. To this end, education that is multicultural (Grant and Sleeter, 1989)—or simply "multicultural education"—has received considerable attention. The National Council for the Accreditation of Teacher Education (1982) describes multicultural education as "preparation for the social, political, and economic realities individuals will experience in culturally diverse and complex human encounters...providing a process for individuals to develop competencies for perceiving, evaluating, and behaving in different cultural settings" (p.14).

Multicultural education nonetheless represents a change in educational thinking. After all, social structures in most nations often put minorities at a disadvantage, and the United States is no exception according to many observers (e.g., Anderson, 1990). State-supported schooling in the United States, for instance, began with the attempt to "Americanize" immigrant populations. Knowledge of other cultures (e.g., those of immigrants) seldom figured in school curricula, with the result that students often developed narrow views of the world (Boyer, 1990).

Whereas critics of multicultural education worry that it may fragment students' views of culture (Hartoonian, 1988), supporters believe this view to be short-sighted. In fact, many supporters do not propose a specific multicultural curriculum at all. Rather, they have in mind a framework from which to shape curriculum and carry out instruction. The aim is to help students understand how culture not only shapes, but also limits, their actions. Such understanding permits students to perceive both their own culture and others in a more critical light (Spears *et al.*, 1990). In this sense, multicultural education seeks to create an environment in which students can understand, respect, and ultimately value cultural diversity.

Why Multicultural Education in Rural Schools?

Multicultural education in rural schools merits attention for several reasons. First, the character of rural life is changing (Deaton and McNamara, 1984), and thus rural needs are changing as well (Stern, 1992). Historically, rural schools have responded to a full range of educational, personal, and professional needs in their communities. Faced with economic, technological, and demographic changes, rural communities and schools are, however, recognizing the need to look outside, rather than only within, for answers to questions about human meaning and purpose. Second, after its founding, the United States welcomed the immigration of people from many differing ethnic and religious backgrounds. Many groups settled in rural areas, making contributions that persist to this day. Third, recent demographic trends, including continued immigration to the United States, are rapidly increasing the ethnic and cultural diversity of American society.

These developments make interaction among individuals and groups with quite different backgrounds increasingly more common. Certainly such interaction will be more productive if carried out on the basis of mutual understanding and respect, rather than suspicion and prejudice. Three considerations bear on making multicultural education work in rural schools, as follows: (1) reducing cultural isolation in rural schools, (2) adapting practice to accommodate local needs, and (3) the nature of outcomes.

Reducing Cultural Isolation

Pearse (1989) warns that the lack of contact with—or complacency about—other cultural and ethnic groups will place students at a disadvantage. Multicultural understanding helps students overcome the cultural isolation that lack of ethnic diversity in rural areas may impose. It prepares rural students with the broader understanding of culture that the future will most certainly require.

The purposes of multicultural education are compelling, however, only when rural schools make sense of them in terms of their own circumstances (Spears *et al.*, 1990). This seeming paradox rests on the fact that rural traditions are part of the cultural diversity of the United States. Rural students, therefore, can understand other cultures best when they understand their own culture well. Educators such as those involved with the Foxfire Network understand this principle (Wigginton, 1985). Foxfire engages students in examinations of their own cultures, partly as a way to show students the meaning of culture.

Adapting Practice

School practices designed to address diversity are, in fact, as varied as rural communities themselves. Whatever the scope of the multicultural effort, Spears and colleagues (1990) suggest

that attention to the following features are critical for success: mission, staffing, curriculum and instruction, home and community linkages, extracurricular activities, and student characteristics.

Rural schools reported a number of successful strategies to increase the ethnic diversity of their staffs (Spears *et al.*, 1990). Programs like "Teach for America"—and connections with schools of education—helped secure ethnically diverse staff as visiting or resource teachers. Sometimes, these visiting teachers became permanent faculty. Some rural districts also recruited ethnically diverse teachers, whom they rotated among schools. When neither of these strategies was possible, white teachers visited multi-ethnic schools or took part in workshops about cultural diversity.

Some schools provided students and teachers with materials or inaugurated instructional events that reflected cultural diversity. Strategies included (1) replacing older textbooks with ones that treated multicultural issues, (2) using packaged multicultural materials, (3) selecting relevant library materials or supplementary texts to be used in student assignments, and (4) using ethnic holidays and celebrations as the basis for class assignments and school celebrations.

Cultivating links between home and school also proved to be essential. Strategies to enlist parental support included (1) participation in planning, (2) developing newsletters about the progress and purpose of the multicultural effort, (3) inviting parental participation at cultural events and on field trips, and (4) conducting family workshops about cultural diversity.

Extracurricular activities included making field trips to museums and cultural festivals or inviting speakers to address students. Hosting exchange students was another successful strategy. Exchange students often became celebrated members of the community and willingly served as speakers at community events.

Outcomes

Due in part to the continuing debate over how to define multicultural education—why it should be and for whom it is intended—little has been written about "hard" outcomes. But evidence does exist that multicultural education makes a difference. This evidence generally emerges from the local meaning—symbolic or personal—that participants assign to multicultural reform.

Spears and colleagues (1990) reported that, to some participants, multicultural education made school more "relevant," contributing, they believed, to decreased rates of dropping out. Others reported a decrease in racial stereotyping, leading to better relationships among students. Among ethnic minority students, a cultural "grounding," or sense of belonging was reported, and demonstrated through behaviors indicating increased self-confidence.

Oliver (1991) established a positive relationship between racial attitudes of white college students and exposure to practices associated with multicultural education, with curriculum and instruction representing the strongest influence. Tomlinson (1990), who introduced multicultural reforms in 23 British schools, reports more egalitarian and sensitive attitudes as evidence of the value of multicultural education.

Multicultural Education and Society

Many rural communities are now facing a cultural crisis (Berry, 1990). Societies experience such crisis when cultural traditions no longer conform to the preoccupations and needs of everyday life (Nash, 1974). Outmigration, profound restructuring of the rural economy, and the increase in rural poverty (Stern, 1992) add to the crisis.

Multicultural education can help individuals and communities value and preserve their own cultural uniqueness. It can also serve the same function more generally, so that our multicultural society values and preserves itself.

Multicultural education offers a relevant view of educational purpose in an increasingly complex world. It is not a quick fix. It does, however, provide a map from which to chart the future, and it can help educators and communities challenge arrangements that reproduce inequity (Sleeter, 1992).

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ERIC Clearinghouse on Urban Education

Successful Detracking in Middle and Senior High Schools

by Carol Ascher

In tracked schools, students are categorized according to measures of intelligence, achievement, or aptitude, and are then assigned to hierarchical ability- or interest-grouped classes. Although most elementary schools have within-class ability grouping, tracking is most common at the middle and high school levels.

Recently, a wide range of national educational and child advocacy organizations have recommended the abolition of tracking. Their reason is that too often tracking creates class and race-linked differences in access to learning. In fact, because of the inequities in opportunity it creates, tracking is a major contributor to the continuing gaps in achievement between disadvantaged and affluent students and between minorities and whites (Oakes, 1992; 1985).

Although tracking has declined nationwide in recent years, it remains widespread. For example, in grade seven about two-thirds of all schools have ability grouping in some or all subjects, and about a fifth group homogeneously in every subject. Moreover, the prevalence of ability grouping increases when there are sizable enrollments of black and Hispanic students (Braddock, 1990).

Not surprisingly, the changeover to heterogeneous groupings—generally called either detracking or untracking—remains controversial. The greatest concern among both parents and educators is that heterogeneous grouping may slow down the learning of high-achieving students, for there is evidence that high achievers do better in accelerated classes for the gifted and talented (Kulick, 1991). Oakes (1992), however, has pointed out that the benefits these students experience are not from the homogeneity of the group, but from their enriched curriculum—which lower track students would also thrive on, given sufficient support.

It is also clear that tracking can work against high achievers, particularly where a large number of the students are above average. Districts vary enormously in their cut-offs for slow and gifted learners. In fact, suburban, middle-class districts, where students perform above the national average, generally have high cut-offs for their gifted and talented programs, and are therefore most likely to send many capable students to regular or unaccelerated classes (Useem, 1990).

Current Detracking Efforts

There is still much to understand about the ramifications of both tracking and heterogeneous groupings. Yet because the country is quickly shifting toward a belief in heterogeneous groupings, and many schools have already begun detracking some or all academic subjects, it is useful to summarize those changes necessary for detracking to succeed.

Based on the ethnographic study of schools around the country, Wheelock (1992) outlines six factors which exist in schools that are successfully detracking.

1. *A Culture of Detracking.* Creating a new culture of detracking is probably more important than any specific strategy. Perhaps the key to a detracked culture is the commitment to be inclusive. Teachers, parents, and students alike believe in the right and ability of students from every background to learn from the best kind of curriculum. They are also convinced that all students can gain academically and socially from learning together and from each other.

2. *Parent Involvement.* Since middle-class parents of gifted students can be detracking's most powerful opponents, they must be assured that their children will not be subjected to a watered-down curriculum, but that all students will be offered gifted material. They must also be helped to rethink the competitive, individualistic way in which they have come to view schooling, and to see how learning improves when students listen to others from different backgrounds, share knowledge, and teach their peers.

3. *Professional Development and Support.* Because the core of any detracking reform centers on how teaching will occur in the classroom, it is critical that teachers be actively involved in the change. This means not only that discussions about when, where, and how to detract must include teachers, but that teachers must receive professional development prior to, during, and after the detracking process.

Wheelock suggests that teachers must receive three major areas of training for detracking: the risk-taking, communication, and planning skills to work for whole-school change; strategies for working effectively with diverse students in a single classroom; and specific curricula they may not have used or watched others use.

4. *Phase-In Change Process.* Detracking involves large changes at many levels. Even once the commitment to detracking has been made, most schools proceed slowly to allow teachers, students, and parents to adjust. Often detracking begins with a single grade level, student cluster, or subject—say, science, social studies, or language arts. Mathematics, with its aura of appropriateness for only the best and the brightest, often remains the last to be breached by detracking plans. The point is not that there is a certain way to proceed with detracking, or even a definite time schedule. Rather, plans must be flexible enough to respond to hesitations and concrete problems as well as unanticipated openings.

5. *Rethinking All Routines.* Ultimately, detracking should be reflected in all areas of school life. Thus, school routines that separate students from each other, that exclude some students from the opportunity to learn, that communicate reduced expectations for some, or that undermine a sense of belonging must all be rethought. Instead of pull-out approaches, every attempt should be made to keep all students within the regular classrooms, providing the fast learners with needed stimulation and the slow ones with the necessary support.

6. *District and State Support.* Although detracking takes place at the school level, a supportive policy coupled with technical assistance at the district and state levels can nurture administrators and teachers, enabling more than the most adventurous schools to proceed.

Instruction for Heterogeneous Classes

In a fully detracked school, most instruction is provided in heterogeneous groups. Teachers no longer pace their instruction to the average student, but individualize learning through personalized assignments and learning centers. Rather than dominate the classroom, teachers act as directors of learning which takes place through such multiple routines as cooperative learning, complex instruction, and peer and cross-age tutoring.

Developed by Robert Slavin and his associates at Johns Hopkins University, cooperative learning has been heavily researched; it is the most common strategy used in detracked schools and exists in a number of models. In all, students work in heterogeneous groups and share responsibility for one another's learning. While some models insert a competitive element, others stress the building of team scores by mutual cooperation (Slavin, 1990).

The Need for Alternative Assessment

Standardized testing has been the handmaiden of tracking, assuring teachers, students, and administrators alike that there is a rationale behind the hierarchical sorting of students. Although standardized tests will likely continue to be used for some purposes, they tend to work against a detracked culture. First, they see ability as static, not as dynamic, and they suggest what students already know, not where they need help. Second, they create an emphasis on teacher talk, seat work, and rote learning—all of which are antithetical to the interactive, problem-solving and egalitarian workings of a detracked school.

While a variety of performance-based tests are being developed, so far they are expensive, labor intensive, and imprecise (Maeroff, 1991). Thus their growth will be dependent on a commitment not only to new ways of teaching and a problem-solving curriculum, but to egalitarian school organizational structures.

Accelerated Schools

One school restructuring model that results in detracking is Accelerated Schools, developed by Henry Levin and his colleagues at Stanford. Briefly, in an accelerated school, all students receive the enriched curriculum and problem-solving techniques generally reserved for gifted and talented students. As in any successfully detracked school, an accelerated school curriculum is not only fast-paced and engaging, but it includes concepts, analyses, problem-solving, and interesting applications. Dewey's notion of collaborative inquiry both informs how learning occurs in accelerated schools, and guides the school governance process. Again, as with detracked schools that depend for their success on bringing parents, teachers, and students into the process, accelerated schools involve parents, teachers, and students in formulating both the goals and the interventions (Levin, 1987).

Conclusion

Although tracking remains controversial among both educators and parents, there has been a recent policy consensus that the negative effects of tracking on lower track students are so severe that schools should move towards detracking.

Successful detracking rests on an inclusive school culture. It also depends on a curriculum that is interactive and problem-solving, as well as on assessment processes that support such a curriculum. Schools embarked on detracking must draw in parents, students, and teachers, not only to ensure that these groups buy into the change, but to teach them new egalitarian ways of thinking, and to use them to help reconsider existing school routines.

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ERIC Clearinghouse on Adult, Career, and Vocational Education

Integrating Academic and Vocational Education: Strategies for Implementation

by Bettina A. Lankard

The integration of academic and vocational education is an educational reform strategy conceptualized by vocational educators, supported by the business community, and articulated by policy makers in the 1990 Carl Perkins Amendments, which require that federal money be spent on programs that "integrate academic and vocational education . . . through coherent sequences of courses, so that students achieve both academic and occupational competencies" (section 235). It is vocational education's attempt to improve the educational and employment opportunities of youth who will face new technologies and business management systems that demand high-level worker skills. This ERIC Digest reviews recent literature on the integration of academic and vocational education, highlighting the rationale, goals, and focus of integration efforts and describing eight models of integration and elements necessary for success.

Reasons for Integration

Triggering the reform movement in vocational education are the increasingly high dropout and illiteracy rates, along with employers' criticisms that schools are delivering workers who lack problem-solving abilities, higher-order thinking skills, and communication/employability skills—all crucial for work in a global economy. Vocational educators have been criticized for promoting overly specific training and encouraging a dual structure that segregates vocational and academic education. Academic educators, on the other hand, suffer criticism for providing curriculum that lacks participatory forms of learning and opportunities for students to connect learning to "real world" events (Grubb, *et al.*, 1991). In addition, both academic and vocational educators are facing reduced enrollments and program offerings and increased graduation requirements with external pressures for accountability. Thus, the integration of vocational and academic education offers an opportunity to effect change in an educational system that is in need of reform.

The Goals and Focus of Integration Efforts

The Southern Regional Education Board (SREB)—a consortium of 14 member states—was formed to "develop, apply, evaluate, and advance approaches to strengthen students' basic competencies in communications, mathematics, and science, and their critical thinking and problem-solving abilities" (Bottoms and Presson, 1989, p. vi). To improve general and vocational education in high school, SREB worked with vocational, government, and business leaders to "investigate over 25 high schools; interview several hundred students, teachers, and administrators; review over 2,700 transcripts of high school graduates; assess over 3,100 vocational completers on science; and follow up on over 1,700 vocational graduates one year after completing high school" (*ibid.*). Their report presents the following recommendations for raising the academic and technological literacy of high school graduates:

- Students pursuing a vocational major should be required to complete a vigorous and coherent program combining academic and vocational study.
- Students in the general curriculum for whom the pursuit of a vocational major is inappropriate should be expected to complete an upgraded program requiring them to study one or more of the academic areas in depth.

Although the goals of all stakeholders in the effort to integrate academic and vocational education are not identical to those of SREB, they generally involve making changes necessary for reform—curriculum changes, organizational restructuring, improved linkages with postsecondary education or employment, and so forth. The state of Ohio, for example, has adopted a curriculum of "applied academics" in which academic and vocational teachers from area vocational schools and comprehensive high schools work together to develop integrated curricula, often teaching as a team. The benefits of such integration efforts are that they can establish relationships among teachers from academic and vocational areas, enable schools to prepare students for clusters of related occupations with varied skill levels, initiate the alignment and sequencing of academic and vocational course content, and encourage the restructuring of curriculum and course sequences along the lines of clusters or career paths.

Models of Integration

Because there are varying purposes, goals, and desired outcomes for integrating academic and vocational education, various innovations and practices are being initiated in schools across the United States. Grubb, *et al.* (1991) identify eight integration models. These models have many variations and suggest new ways for educators to think about integration and about practices that can best help them meet the challenges of reform. A brief description of the models along with their respective benefits and limitations as presented by Grubb, *et al.* (1991) is provided here:

1. *Incorporating more academic content in vocational courses.* This approach involves vocational teachers in modifying vocational courses to include more academic content. Benefits include the potential of increasing the academic capacities of students to meet the technical requirements of business, ease of adoption, limited additional expense, and remediation. However, this model does not eliminate the segregation of vocational and academic courses, teachers, or students nor does it affect the academic or general tracks.

2. *Combining vocational and academic teachers to enhance academic competencies in vocational programs.* In this model, academic teachers cooperate with vocational teachers in curriculum development and/or teaching to include more academic content in either vocational courses or related applied courses. Benefits include the presence of academic teachers within a vocational program to highlight the importance of academic material and to give in-house remediation to certain students. A limitation of this model is that it requires resources to fund such programs. It also continues to segregate students in vocational or academic tracks and offers some students a relatively low level of academic skills.

3. *Making academic courses more vocationally relevant.* Potentially all students (vocational and general track students) are targeted for this approach that involves academic teachers in modifying courses or adopting new courses to include more vocational content (for example,

adopting applied academics). Benefits of this model are that off-the-shelf curriculum materials are available and a coherent sequencing of courses is possible. Limitations of this model are that it changes academic courses but does not touch vocational programs, nor does it encourage cooperation between vocational and academic teachers.

4. *Curricular "alignment": modifying both vocational and academic courses.*
   This approach is designed to change the content of both vocational and academic courses and to consider the sequence of courses rather than viewing courses as individual and independent offerings. It requires cooperation between academic and vocational teachers and fosters team efforts. Benefits of this model are its flexibility, low cost, and potential for coordinating existing teachers and courses rather than requiring new high school configurations. It is an attempt to create a coherent sequence of courses for vocational education students rather than modifying existing individual courses that are independent of each other. A limitation is that the alignment is vertical, leaving the sequence of academic courses unchanged and failing to require regular contact between vocational and academic teachers.

5. *The senior project as a form of integration.*
   This approach involves both academic and vocational teachers in organizing curriculum around student projects. Getting teachers to collaborate in developing new courses or modifying content is the primary benefit. Limitations are that the effects on integration may be small and the vocational content nil.

6. *The Academy model.*
   In this school-within-a-school concept, four teachers typically collaborate and team teach in math, English, science, and the vocational subject that is the core of the Academy. Each group of students studies these subjects with the same team of teachers for two or three years in the Academy and takes all other subjects in the regular high school. Benefits are sustained contact between teachers and students, smaller class size, teacher commitment to the Academy model, and connections with firms who are linked with the program. This model offers substantial opportunity for both horizontal and vertical alignment as teachers can coordinate the topics they teach and adjust the sequence of topics over time. Limitations are that students are frequently segregated in the same ways evidenced through tracking, the process is costly, and it requires restructuring.

7. *Occupational high schools and magnet schools.*
   Occupational high schools have been relatively successful at integrating vocational and academic education, particularly when teachers keep in mind the goals of the school and the ambitions of the students. Magnet schools, although involving students interested in specific occupational areas, have not been conducive to integration in that the schools often are involved in solving problems of racial desegregation. The benefits of having occupational high schools include the potential alignment of all courses with emphasis on specific occupational areas and opportunity for academic and vocational teachers to collaborate.

8. *Occupational clusters, "career paths," and occupational majors.*
   Occupational clusters can be used within both comprehensive high schools and specialized vocational schools. Teachers usually belong to occupational clusters rather than conventional academic or vocational departments, thus facilitating collaboration. Benefits include the creation of coherent sequences of courses that encourage students to think about occupations early in their high school careers and the bringing together of students from very different backgrounds and with varied ambitions. The career paths offer opportunities for contact with potential employers and with educators at postsecondary institutions. A limitation of this model is that it requires a school with a well-developed vocational program that provides substantial offerings in each of the occupational clusters.

Elements of Success

The appropriate model for each state, district, school, and area must be determined after considering existing programs, local labor markets, and student needs. However, several elements of success have been identified (Stasz and Grubb, 1991; Pritz, 1989):

- Vision and commitment from all levels
- Consistent support from district administrators and state officials
- New resources for funding
- Autonomy for teachers
- Teacher training and retraining
- Evaluation of efforts
- Adequate time for implementation

For further information on alternative implementation strategies and abstracts of exemplary programs, see Pritz (1989).

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ERIC Clearinghouse on Rural Education and Small Schools

Integrating Mexican-American History and Culture Into the Social Studies Classroom

by Kathy Escamilla

Hispanics in the United States are now the fastest growing and one of the least educated ethnic groups in the country (Estrada, 1988; Broun 1992), and Mexican-Americans make up 63 percent of the entire Hispanic population (Estrada, 1988). Over the past 25 years, educators have initiated many programs and policies with the hope of improving educational attainment among Mexican-Americans and other Hispanics. The purpose of this Digest is to discuss one such effort—the integration of Mexican-American history and culture into the social studies curriculum. The Digest will discuss why this effort is so important and how to overcome possible pitfalls. Successful strategies discussed in this Digest include: (1) selecting texts and other curriculum materials that accurately represent the Mexican-American experience in the U.S., (2) helping teachers to become more knowledgeable themselves, and (3) creating a school climate that values ethnic diversity.

Reasons for Teaching Mexican-American History and Culture

Teaching such content serves multiple purposes. First, it can be important to the self-esteem of Mexican-American students. Studies suggest that positive ethnic affiliation among Mexican-Americans (and other groups) greatly influences individual development in many ways, including: lifestyle choices, values, opinions, attitudes, and approaches to learning (Gollnick and Chinn, 1990).

Yet, it is not enough for Mexican-American students—or any student—to learn only about their own cultural heritage and history. They must learn to appreciate and respect other cultural groups. This need leads to the second purpose of integrating Mexican-American history and culture into the social studies classroom: To develop "ethnic literacy" in all students. Ethnic literacy, as defined by Banks and Banks (1989), is a knowledge of the role and function that ethnicity plays in our daily lives, in our society, and in our transactions locally, regionally, and transnationally. Ethnic literacy allows all students to understand their uniqueness, to understand the complexities of ethnicity and culture, and to take pride in who they are as people.

Selecting Texts and Curriculum Materials

There are many materials currently available to teach about Mexican-American culture and history. But, as Banks and Banks (1989) have noted, many of these materials limit their presentation of the Mexican-American experience to the discussion of isolated holidays and events. Examples include the 16 de septiembre (Mexican Independence Day) and 5 de mayo (an important holiday in Mexico, commemorating the victory of Mexico over the French, who were occupying Mexico in 1862).

Another pitfall of some curriculum materials in use is that they tend to present historical figures in two extremes. One extreme is the "hero presentation," which describes a few exceptional historical figures as superhumans, who overcame insurmountable odds to achieve greatness. More often, though, social studies curricula depict the Mexican-American people as helpless victims of poverty and discrimination, who largely reside in urban barrios or rural migrant camps.

This dichotomy of heroes and victims produces a distorted account of the Mexican-American experience in the U.S. Perpetuating stereotypes of Mexican-Americans is harmful to all students in a classroom, but poses special dangers to students of Mexican-American heritage. The view that only the exceptional succeed, while the majority fall victim—combined with sporadic and inaccurate treatment of the contributions of Mexican-Americans in the curriculum—may lead students to conclude that if they are not truly exceptional (and most of us are not), there is no hope for them, and their destined "place" is in an urban barrio or rural migrant camp. Further, students may erroneously conclude that their heritage has contributed very little to the development of the Western Hemisphere.

Failing to present a more realistic picture of Mexican-American people and their contributions leaves students with a dearth of realistic role models. Most Mexican-American students are not likely to achieve the greatness of a Caesar Chavez, nor will they likely live in a state of abject poverty. As a result, many may find it difficult to identify with the Mexican-American culture as presented in most social studies curriculum. This situation defeats one purpose of integrating Mexican-American studies into the curriculum—to develop a sense of ethnic pride.

Educators should look for curriculum materials that present a more considered view of the Mexican-American experience and history. Some excellent examples are cited in the bibliography at the end of this Digest. Such a view includes not only heroes and victims, but "regular people," as well. Such a perspective depicts diversity. There is not a single Mexican-American culture, just as there is not a single American culture. Equally importantly, this view includes the notion that cultures change over time. Effective instructional materials include ideas related to the contemporary, as well as the historical experience, of Mexican-Americans.

Preparing Teachers

Research suggests that teacher decisions are more important than either written curriculum or mandated texts in determining

the actual content of instruction. Further, these instructional decisions often rest on teachers' personal experiences rather than what the textbook suggests (Manley-Casimir and Wassermann, 1989). This finding is important for several reasons.

First, nationally, 25 percent of our students are nonwhite, while only 10 percent of our teaching force is nonwhite (Broun, 1992). In urban districts, 70 percent of the student body is nonwhite, but only 30 percent of the faculty is nonwhite. Further, the population of Hispanic students, alone, is growing at two and a half times the rate of the general student population (Broun, 1992). Given these facts, many teachers probably lack the firsthand experiences and knowledge necessary to integrate readily the history and culture of Mexican-Americans into their classroom instruction (Manley-Casimir and Wassermann, 1989).

Selecting accurate and diverse instructional materials turns out to be just one of the needed steps. Another—even more important step—is to provide preservice and inservice education to help teachers, themselves, learn the history of Mexican-Americans in the U.S. For teachers to teach this subject matter effectively, they need to understand and respect the diversity of cultures in Mexican-American communities.

Creating a School Climate that Appreciates Diversity

Student attitudes about school and their sense of self are shaped by what happens both in the classroom and throughout the school. The benefits gained by effectively incorporating Mexican-American history and culture into classroom instruction will be greatly diluted unless the school as a whole visibly appreciates not only the Mexican-American culture but also the students who represent that culture (Banks and Banks, 1989).

For example, comments such as, "I love living in the Southwest—the architecture is great, the lifestyle is wonderful," and so forth, may be common in a given school. This same school may also feature cultural activities such as folk dancing or a Spanish club, and a social studies curriculum that reflects Mexican-American contributions. Yet in this school, when teachers describe their Mexican-American students, they may also claim that students are "not competitive," "not goal oriented," or "not future-directed." Some observers describe such attitudes as valuing "lo mexicano" (Mexican things), but not "los mexicanos" (Mexican peoples) (Paz, 1987). Students can make few gains in a school environment that purports to value students' cultures but disdains students of that culture. For these reasons, preservice and inservice training and course work should include administrators, counselors, paraprofessionals, and others in the school environment who interact with Mexican-American students.

Conclusion

Integrating Mexican-American history and culture into the social studies classroom is a worthy and important goal for all schools. Effective integration requires that teachers have accurate materials that represent the diversity of the Mexican-American experience and the broad range of contributions made by Mexican-Americans (see suggested materials below). But, curriculum materials will have little impact without effective staff development for teachers and other educators. Further, if the goals of developing cultural pride, self-esteem, and respect for diversity are to be fully achieved, the total school environment—inside and outside the classroom—must respect diversity and display an appreciation of Mexican-American students and their heritage.

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*Note: Due to space limitations, this bibliography is by no means exhaustive. It is meant, however, to provide examples of materials and resources that teachers may use to integrate the Mexican-American experience into social studies classrooms.

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ED 348 200

Geography in History: A Necessary Connection in the School Curriculum

by John J. Patrick

Geography and history are prominent subjects of the current curriculum reform agenda. Both subjects have been emphasized in high-profile curriculum reform reports produced by various organizations, such as the Bradley Commission on History in Schools, the Education for Democracy Project of the American Federation of Teachers, and the National Commission on Social Studies in the Schools. The Bradley Commission, for example, recognizes "the relationship between geography and history as a matrix of time and place, and as context for events" (1988, 9). And, according to the report of the National Commission on Social Studies in the Schools, "Because they offer the perspectives of time and place, history and geography should provide the matrix or framework for social studies" (1989, 3). Furthermore, projects were launched in 1992 to develop national standards for teaching and learning geography and history in elementary and secondary schools. Finally, geography and history are highlighted as core subjects of the school curriculum in Goal Three of a set of six National Education Goals proclaimed in February 1990 by the President and state governors (Executive Office of the President, 1990).

Geography and History in New Curriculum Frameworks. New state-level curriculum frameworks have emphasized geography and history as core subjects of the social studies sequence of courses, from kindergarten through the twelfth grade. In 1990, for example, the Florida Commission on Social Studies Education published *Connections, Challenges, Choices*, which presents the objectives, subjects, topics, and rationale for the state of Florida's new social studies curriculum for grades K–12. This Florida curriculum document emphasizes this central theme: "We recommend the adoption of a K–12 social studies program of study that . . . emphasizes history and geography" (1990, 3).

The Florida Commission on Social Studies Education went along with a trend initiated by *The History-Social Science Framework for California Public Schools, Kindergarten Through Grade Twelve* in placing the synthesizing and integrating subjects of history and geography at the center of the social studies curriculum of elementary and secondary schools. The California curriculum document was the leader in proclaiming the necessary connection of history and geography at the core of the curriculum: "History and geography are the two great integrative studies of the field [of social studies]. . . . Throughout this curriculum, the importance of the variables of time and place, when and where, history and geography, is stressed repeatedly" (1988, 4).

In 1992, two more state-level departments of education, Alabama and Mississippi, produced social studies curriculum frameworks based on the interrelated subjects of geography and history, with emphasis also given to the subjects of civics/government and economics. The Alabama and Mississippi curriculum frameworks, like the California and Florida documents, stress the utility and logic of teaching and learning geography through courses in American history and world history.

Geography as an Indispensable Part of Historical Study. The eminent geographer Donald Meinig views geography and history as complementary and necessarily connected in teaching and learning about the past and present. He effectively demonstrates the use of geographical ideas in the study of history in his remarkable work of scholarship: *The Shaping of America: A Geographical Perspective on 500 Years of American History*. In the preface to this three-volume project, Meinig stresses that, "geography is not just a physical stage for the historical drama, not just a set of facts about areas of the earth. It is a special way of looking at the world. Geography, like history, is an age-old and essential strategy for thinking about large and complex matters" (1987, xv). Teachers should examine Meinig's work to develop a geographic perspective on major events and themes in history.

Key concepts of geography, such as location, place, and region, are tied inseparably to major ideas of history, such as time, period, and events. Geography and history in tandem enable learners to understand how events and places have affected each other across time, how people have influenced and have been influenced by their environments in different periods of the past. Geographic learning is, therefore, essential to sound teaching and learning of history in general and American history in particular.

The necessity of connecting geography to history in the school curriculum is discussed in the recently issued *Framework for the 1994 NAEP U.S. History Assessment*. The authors point out that, "history has a spatial dimension—the places where human actions occur. For example, aspects of the natural environment, such as climate and terrain, influence human behavior; and people affect the places they inhabit. Therefore, main ideas of geography, such as the location of places and relationships within places should be included as important parts of the study of history" (1992, 10).

How to Include Geography in the Teaching and Learning of History. How should curriculum developers and teachers proceed to connect geography with history in the curriculum? They might begin with five *geographic themes*, presented in *Guidelines for Geographic Education*: location, place, relationships within places, movement, and regions. The National Council for Geographic Education, the Association of American Geographers, and the National Geographic Society have endorsed these five themes as foundations for geography education in schools. Increasingly, they are being adopted by developers of curriculum guides for state-level departments of education and local school districts. For example, these five themes are emphasized in the influential *History-Social Science Framework for California Public Schools*. How can these five geographic themes be used to illuminate and enhance important topics in standard American history courses?

Each of the five major themes of geography education is stated and described below in connection with key questions about a major event in world history: the voyages of Columbus, undertaken from 1492-1504.

- *Location*: People and places are positioned variously on the Earth's surface. Where in the world are places located? What are the locations of places in Europe and the Caribbean region that were linked by the Columbian voyages? How did the relative location of these places affect the events of the Columbian voyages?
- *Place*: Physical and human characteristics distinguish one place from other places. What makes a place special? How have the distinguishing characteristics of a place, such as Cuba, Santo Domingo, or Spain, changed because of cataclysmic events of the Columbian voyages?

- *Relationship Within Places:* The interactions of humans with their environments shape the characteristics of both people and the environment. How do people change the natural environment and how does the environment influence the activities of people? How did human environment interactions affect the physical and human characteristics of the Western hemisphere region during and after the Columbian voyages?
- *Movement:* Human interactions on the Earth—people, products, and information—affect the characteristics of places. What are the global patterns of movement of people, products, microbes, domestic animals, seeds, and information that developed as a consequence of the Columbian voyages?
- *Regions:* The earth can be divided into regions to help us understand similarities and differences of people and places. How did the Caribbean region form and change during and after the Columbian voyages? How did the regions of Western Europe and Western Africa change because of the Columbian voyages?

The geographic themes discussed above are indispensable aids to understanding major events in U.S. history. For example, the themes of location and place can be fruitfully applied to analysis of President Jefferson's decision to purchase Louisiana and President Theodore Roosevelt's desire to build a canal across the isthmus of Panama. Teachers of American history can use the ideas of relationships within places (human-environment interactions) and region to enhance their students' learning about problems of the "Dust Bowl" of the Great Plains in the 1930s and New Deal programs designed to resolve such problems. Further, the geographic themes of region, movement, and place can yield insights for students about the "great migration" of Black Americans from the rural South to the urban North during the first half of the twentieth century.

Exemplary Instructional Materials that Use the Five Geographic Themes in Lessons on American History. The Agency for Instructional Technology (AIT) has produced a set of 10 video programs *Geography in U.S. History*, that connect the five geographic themes to key events in United States history. These 20-minute programs, designed for use in secondary school history courses, include the following topics:

- North versus South in the Founding of the United States, 1787–1796.
- Jefferson Decides to Purchase Louisiana, 1801–1815.
- Civil War and Social Change in Georgia: The Case of Savannah, 1860–1870.
- Clash of Cultures on the Great Plains: The Case of Red Cloud and the Lakota People, 1865–1890.
- An Industrial Revolution in Pittsburgh, 1865–1900.
- Americans Build the Panama Canal, 1901–1914.
- A Nation of Immigrants: The Chinese American Experience, 1850–1990.
- Moving North to Chicago: The Great Migration of Black Americans from the Rural South to the Urban North, 1900–1945.
- A New Deal for the Dust Bowl, 1931–1945.
- The Origin and Development of the North Atlantic Treaty Organization (NATO), 1945–1991.

Information about these ten programs can be obtained from the Agency for Instructional Technology, Box A, Bloomington, Indiana 47402; 812/339–2203.

The National Geographic Society has produced a multi-media set of instructional materials that connect major themes of geography to the study of American history. This product is titled *GTV: A Geographic Perspective on American History*. Computers and laser discs present a visual journey through American history, with a special focus on geography. Each segment treats a different topic. Software allows rearrangement of maps and pictures to create individualized presentations. This interactive video program includes three types of information: (1) surveys of themes in American history, (2) primary documents, and (3) population data for particular periods of American history. This product is distributed for the National Geographic Society by Optical Data Corporation, 30 Technology Drive, Warren, New Jersey 07059.

Another exemplary teaching tool, published by the National Geographic Society, is *Historical Atlas of the United States*. This splendid oversized volume presents American history from a geographic perspective. The chronological treatment begins in 1400 and ends in 1988. Information about this historical atlas can be obtained from the National Geographic Society, 1600 M Street, NW, Washington, DC 20036.

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ERIC Clearinghouse for Social Studies/Social Science Education

The Core Ideas of *CIVITAS*: A Framework for Civic Education

by Charles F. Bahmueller

CIVITAS is a framework that specifies core ideas for civic education in our American constitutional democracy. It states what adults will ideally know and be able to do to be effective democratic citizens.

CIVITAS was developed by the Center for Civic Education in cooperation with the Council for the Advancement of Citizenship and with support from The Pew Charitable Trusts. More than 60 scholars contributed to this project as consultants and authors of various parts of *CIVITAS: A Framework for Civic Education.* This ERIC Digest highlights core ideas in *CIVITAS* on the rationale for civic education. It also addresses educational goals and substantive ideas for teachers and learners on civic virtue, civic participation skills, and civic knowledge.

The Rationale for Civic Education

Civic education in a democracy is education in self-government, which means active participation and not passive acquiescence in the actions of others. The health of the polity requires the widest possible participation of its citizens consistent with the common good and the protection of individual rights. No one's civic potential can be fulfilled without forming and maintaining an intention to pursue the common good; to protect individuals from unconstitutional abuses by government and from attacks on their rights from any source, public or private; to seek the broad knowledge and wisdom that informs judgment of public affairs; and to develop the skill to use that knowledge effectively. Such values, perspectives, knowledge, and skill in civic matters make responsible and effective civic participation possible. Fostering these qualities constitutes the mission of civic education.

Civic education should consist of the intensive study and understanding of the nation's system of self-government, its values, commitments, and assumptions, and its relevant history; in short, it should involve the theory and practice of a free and open democratic society as it has developed in the United States of America. Civic education should treat the purposes of government, the nature of law, the way private behavior affects the public order and the political system, and the international context of politics. Developing civic participation skills is essential to fulfillment of the promise of constitutional democracy.

The revitalization of education for citizenship is especially timely. The failure of citizens to take part in elections at every level is just one indication of widespread disengagement of citizens from the political system. Americans tend to perceive the Constitution as a self-executing mechanism; its very success has created indifference in many citizens to investing themselves in the political system that sustains their prosperity and well-being. But it is a dangerous illusion to suppose that our American constitutional democracy is like a self-perpetuating machine. The reality is that the system requires careful attention and assiduous cultivation by knowledgeable, skillful, and virtuous citizens.

Many citizens, however, lack an adequate understanding of the core ideas of constitutional democracy. They need deeper knowledge of the American political system than is currently commonplace, both as a framework for judgment and as common ground for public discussion and virtuous and skillful participation.

Goals on Civic Virtue

The ultimate goal of *CIVITAS* is to enable students equipped with the requisite civic knowledge and the skills of civic participation to make their own commitment, carried to adulthood, to the civic values deemed necessary for nurturing American constitutional democracy. This goal is summarized in the term "civic virtue."

Civic virtue has an ancient lineage, rooted in the tradition of classical republicanism, which admonishes citizens to place the public good above private interest. America inherited this republican tradition of civic virtue in the course of its founding. The republic's founders also drew upon another political tradition, classical liberalism, which viewed the chief end of government as the protection of individual rights. *CIVITAS* argues that both the classical republican and liberal views of citizenship are legitimate elements in the historical spectrum of American civic values.

CIVITAS describes civic virtue in terms of civic dispositions and civic commitment. Civic dispositions refer to those attitudes and habits of mind of the citizen that are conducive to the healthy functioning and common good of the democratic system. Civic commitments refer to the freely given, reasoned commitment of the citizen to the fundamental values and principles of American constitutional democracy.

These commitments and dispositions are imperative for two reasons. First, they enable the political process to work effectively to promote the common good. Second, they contribute to the realization of the fundamental ideals of the American political system including protection of the rights of the individual. *CIVITAS* enumerates and discusses the civic dispositions and commitments to fundamental civic values and principles and provides an extended commentary on civic values.

Goals on Civic Participation Skills

Civic education's unique responsibility is not simply to increase civic participation but also to nurture competent and responsible participation. Civic participation should involve more than attempts to influence public policy. It must be based upon moral deliberation, knowledge, and reflective inquiry.

The framework emphasizes that the preservation of individual rights and furtherance of the common good depend upon an enlightened citizenry that participates in the common life of the political community, respecting its constitutional norms and adhering to its fundamental values. *CIVITAS* also stresses that the right to participate carries with it certain moral and political obligations.

CIVITAS is concerned with identifying and fostering the skills required for competent civic action, its adherence to constitutional values and limits, and its adherence to constitutional morality. Thus, the framework discusses three central aspects of active participation: governing and managing groups; monitoring public policy; and influencing public policy. It presents a full and detailed account of the step-by-step stages in the process of participation, from the decision to act to full involvement.

The framework's concept of civic participation adds a much-needed caveat to current thinking on the subject. The fulfillment of the democratic citizen's potential is increasingly thought to have occurred when the citizen acts within civil society, the wide arena of society at large, outside of the institutions and processes of government and politics. Broadly interpreted, civic participation involves the monitoring and influencing of the policies of any organization that significantly affects individual rights and the common good. But, while *CIVITAS* recognizes the value of civic action in this realm, it argues that the foundations of American democracy are imperiled to the extent that citizens withdraw from political institutions in favor of primary or exclusive involvement with the broader arena of civic activities in civil society. Neither sphere of participation should be ignored.

Goals on Civic Knowledge

Knowledge is the necessary foundation of civic virtue and participation. Thus, the coverage of civic knowledge in the framework is extensive and ranges from considerations on the history of Western political thought and action to twentieth-century regimes, law, propaganda, television and politics, civil disobedience, religion and politics, subjects in American government, and much more. The criterion used to include and exclude subject matter was a simple question: What should an individual ideally know in order to be an effective citizen? The framework developers did not expect an adult, still less a student, to know everything in the extensive body of knowledge presented. However, the adult citizen should have a sound working knowledge of the main points.

Of special importance for the curriculum envisaged by *CIVITAS* is the three-fold division of the subjects presented in the civic knowledge section of this volume. Each section opens with the main ideas of the subject—the "conceptual perspective." It is followed by a "historical perspective" and a "contemporary perspective," which are designed to inform the reader of the current significance of the concepts and the historical development of these ideas.

Receiving attention in this part of the framework are core subjects of American government and politics, such as Congress and the presidency, the judicial system, bureaucracy, state and local politics, federalism, the role of the press, and so forth. There are pieces on morality and politics, economics, geography, religion and public life, gender issues, America and the international system, and racial and ethnic diversity. In addition, an extensive section discusses a number of aspects of law, from a conceptual and historical comparison of common and civil law systems to a presentation of the concepts and history of international law. Several non-Western subjects are covered in the framework. China is used as an example of non-Western concepts of the state, and the history of China in the twentieth century, especially China under communism, is discussed. Subjects treated under the heading of "informal institutions and processes of government" include television and politics, propaganda, environmental issues, public opinion and the informal processes of Washington politics, and other subjects.

The "Civic Knowledge" section concludes with "The Role of the Citizen." *CIVITAS* emphasizes the responsibilities of citizens and contains a conceptual and historical account of individual rights and human rights. The framework closes with a general critical assessment of the current state of civic life in the United States of America that underscores the importance of a regenerated concept of citizenship in a constitutional democracy.

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ERIC Clearinghouse on Reading, English, and Communication

Prescription for Literacy: Providing Critical Educational Experiences

by Donna Farrell Siegel and Ralph A. Hanson

Specific kinds of educational experiences provided for children by both parents and teachers, from preschool through high school, can make a significant difference in their reading ability as young adults. Two national studies have recently confirmed the particular home, school, and extracurricular experiences that impact an individual's reading achievement over the course of development. These studies analyzed comprehensive data gathered from 3,959 high school students in 24 school districts across the U.S. The first study, the Kindergarten Reading Follow-up (KRF) Study, examined the long-term effects on children of being taught to read in kindergarten (Hanson and Siegel, 1988; 1991). The second study, the Reading Development Follow-up (RDF) Study, analyzed the same data to identify the specific kinds of experience, from preschool through high school, that foster high levels of reading achievement in high school seniors (Siegel, 1987). The results of these two policy studies provide parents, educators, and policy makers with some straightforward guidelines for cultivating literacy development. The implications are quite clear: students who are provided with more of these specific kinds of experiences across their development will have higher reading achievement levels as young adults than those who have less.

Early Educational Experiences

Early language and educational experiences for children were found to be particularly critical to adult literacy levels. Although early childhood experiences have long been known to be important in terms of general intellectual development, the RDF Study confirmed that the specific kinds of early educational experiences students have are highly predictive of later reading abilities as well. That is, those high school seniors who were provided with more reading, language, and other kinds of both direct and indirect educational experiences during their preschool years had higher overall levels of reading competency than those provided with less. Such preschool activities as learning nursery rhymes and stories, watching Sesame Street, playing word and number games, being read to, attending nursery/preschool, and participating in special lessons such as swimming, dance, or music were all positively related to students' reading ability in high school. Finally, later "high stakes" schooling experiences, such as placement in remedial/developmental classes and/or a particular type of high school academic track, could be linked to the students' level of involvement in early educational experiences.

Early Reading Instruction

Children who learn to read early, either indirectly through home and family experiences, or directly through formal beginning reading programs implemented in preschools and kindergartens, are typically good readers in the primary grades (Mason, 1987). Until recently, however, it was unclear as to whether this advantage was maintained through high school. The findings of the KRF Study now provide some resolve to this age-old debate (Hanson and Siegel, 1988; 1991). The results of this study clearly indicated that those students who began their formal reading instruction in kindergarten had higher reading achievement scores, both at the end of their kindergarten year *and* as seniors in high school, than those students who did not. Also, compared to other high school seniors in the same school districts, those who received the kindergarten reading instruction had better grades, attendance, and attitudes toward reading, as well as less need for remediation. More importantly, these same results held up across ethnic, gender, and social class groups. Perhaps the most astounding finding was that those students in the study who were provided with formal reading instruction in kindergarten were, as a group, from *lower* social class backgrounds than those students who were not; yet, they scored *higher* on all indicators of educational achievement as high school seniors than their higher SES peers who attended elcmentary schools in the same districts.

Elementary Schooling Experiences

In regard to elementary schooling experiences in general, the RDF Study (Siegel, 1987; 1990) found that those students who participated in activities and classes with an academic emphasis, and avoided remedial classes and/or repeating grades, had higher achievement levels than those who did not. The more classes and situations in which students participated that had an academic and/or accelerated emphasis (including skipping a grade or double promotion), as opposed to a non-academic and/or remedial or developmental emphasis, the higher their reading achievement was in their senior year of high school. More specifically, those students who spent more time in writing stories or papers, doing math problems, reading books, working on science projects, and/or working on spelling and language lessons had good school attendance records and high levels of reading achievement.

Secondary Experiences

At the secondary schooling level, those students who spent more time in organized extracurricular activities such as academic clubs, athletic teams, student government, band, and/or special lessons, had higher reading achievement scores as seniors than those who spent more time in unorganized extracurricular activities such as watching TV, talking on the phone, or hanging out at the mall. Also, the students who were programmed through an academic track, as opposed to a vocational track, and/or those who took more than one year of high school math, science, and foreign language courses had

better reading skills at the end of their senior year of high school than those who did not. Finally, those students who spent less time working in part-time jobs, paid or unpaid, had better reading skills than students who worked more.

Parental Involvement and Support

Specific experiences provided by parents, at every schooling level (i.e., pre through high school), were clearly related to adult literacy levels. Results indicated that if parents expect their children to become literate adults, then they must provide guidelines for their behavior and encourage participation in reading and reading-related activities, at least through high school. For example, having rules concerning the student's bedtime, household chores, and/or homework, along with giving rewards for school work, providing books and magazines, and taking the student to the library, museum, and concerts, were all shown to contribute to the level of a student's high school reading achievement. Moreover, parental expectations in regard to students' educational attainment are extremely important. The students who did well in school, and/or indicated that they wanted to continue their education beyond high school, had parents or guardians who expected them to do so, and provided them with the necessary support and encouragement.

Implications

The findings of both the Reading Development Follow-up Study and the Kindergarten Reading Follow-up Study emphasize the responsibility of parents, educators, and policy makers in regard to literacy development: to offer, encourage, and support activities that provide these kinds of experiences and require the use of such skills for students at every schooling level. Early childhood learning experiences, however, are particularly important to literacy development. The finding that early childhood educational experiences, and early reading instruction in particular, are key factors in the reading competency level of high school seniors strongly suggests that *all* children should be given the opportunity to attend high quality preschools and kindergartens that would provide them with these experiences (Siegel and Hanson, 1991).

Information and research documenting the long-term benefits for children of being provided with such experiences first began to appear in the late 1960s and has continued to build since then, nationally as well as internationally (Teale, 1980; Durkin, 1987). Today, however, the vast majority of preschool children *are not* provided with these kinds of early educational experiences; yet, amazingly, educational leaders and national policy makers seem puzzled as to why so many students graduate from high school as functional illiterates.

If our nation's schools are going to have any impact on future literacy rates, then clearly *all* children must be given the opportunity to attend full-day preschools and kindergartens that would provide them with beginning reading instruction and related educational experiences now known to be critical to literacy development. Furthermore, school districts and policy makers must also be ready to present new and compelling evidence for *not* providing early childhood teachers with valid programs that would enable them to teach the appropriate language and beginning reading skills to students in their preschool and kindergarten classes.

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ERIC Clearinghouse on Reading, English, and Communication

Helping Children Overcome Reading Difficulties

by Carl B. Smith and Roger Sensenbaugh

Almost everyone knows a story about the nice little youngster (or sometimes, a grownup) who works hard but can't seem to learn to read and to write. The child's mother works with him or her at home, reading to the child and reading with the child. The child has a tutor at school. The youngster tries with all his/her might, even to the point of tears, but the symbols and the words won't stick. Though apparently learned today at great pain, tomorrow they will be gone. The question is: what do we know about problem readers that will help us guide them? This Digest will discuss children with reading difficulties and how these children can be helped to read and learn more effectively.

Dyslexia

Most children begin reading and writing by the first, second, or third grade. By the time they are adults, most can't recall or can't remember what it was like not to be able to read and write, or how difficult it was to figure out how to translate patterns on a page into words, thoughts, and ideas. These same adults usually cannot understand why some children have not yet begun to read and write by the third grade. They have even more difficulty understanding how adults can function in our society with only the most rudimentary literacy skills.

Dyslexia is perhaps the learning disability that is most widely known, primarily because of Barbara Bush's efforts to make adults aware of the problem of children with this and other learning disabilities. Stories about children (and adults) trying to overcome their learning disabilities appear in the mass media with some regularity. Despite the relative familiarity of the word "dyslexia," there is no clear-cut, widely accepted definition for dyslexia. In the broadest sense, dyslexia refers to the overwhelming difficulty in learning to read and write by normally intelligent children exposed to suitable educational opportunities in school and at home. These often very verbal children's reading levels fall far below what would have been predicted for their quick and alert intelligence (Bryant and Bradley, 1985).

Just as educators and researchers cannot agree on a specific and precise definition of dyslexia, they do not agree on the cause or causes. Recent research (Vellutino, 1987) has challenged many commonly held beliefs about dyslexia: dyslexia results in reversal of letters; dyslexics show uncertain hand preference; children whose first language is alphabetic rather than ideographic are more likely to have dyslexia; and dyslexia is correctable by developing strategies to strengthen the child's visual-spatial system. Instead, *dyslexia appears to be a complex linguistic deficiency marked by the inability to represent and access the sound of a word in order to help remember the word and the inability to break words into component sounds.*

It does appear that there might be a hereditary factor in dyslexia. In one study of 82 average children with reading problems, the children were divided into two groups, "specifics" (reading and spelling were their only difficult school subjects) and "generals" (problems with arithmetic as well as with literacy). When the families of the children in both groups were scanned for a history of reading problems, 40 percent of the families of the "specifics" showed problems among relatives, while among the "generals," only 25 percent showed problems. Thus, the specific disorder does seem to run in families more than the general disorder—a plus for the hereditary factor in dyslexia (Crowder and Wagner, 1992). More research is testing this factor.

It is important to remember that not all individuals who have problems with reading are dyslexic. And the diagnosis of dyslexia should only be made by a qualified reading professional. Many slow readers who are not dyslexic, however, can be helped with a variety of reading experiences to improve fluency.

Helping the Problem Reader

There is growing evidence that it might be more appropriate to refer to the amount of time a learner takes to complete a reading task rather than using qualitative labels, such as good, best, or poor reader (Smith, 1990). If we accept the premise that all individuals are capable of learning to read but some need to stretch their learning time, then we can search for adjustments. Slow readers could read shorter passages. In this way, they could finish a story and experience the success of sharing it with a parent or friend.

Let's examine some other conditions that will help improve comprehension for those learners sometimes labeled reading disabled. Besides reading more slowly, the person with reading difficulties can be asked to find specific kinds of information in a story, or can be paired with a more capable reader who will help in summarizing the essential points of the reading or in identifying the main ideas of a story.

One of the reasons that these learners read more slowly is that they seem less able to identify the organization of a passage of text (Wong and Wilson, 1984). Since efficient comprehension relies on the reader's ability to see the pattern or the direction that the writer is taking, parents and teachers can help these readers by spending more time on building background for the reading selection, both in the general sense of concept building and in the specific sense of creating a mental scheme for the text organization. Many times, drawing a simple diagram can help these readers greatly.

Direct intervention of parent or teacher or tutor in the comprehension process increases reading comprehension in slower readers (Bos, 1982). These readers often need help with vocabulary and need reminders to summarize as they proceed. They also need to ask themselves questions about what they are reading. The parent can prompt thinking or can provide an insight into the language that may otherwise elude the reader.

One effective strategy for slower readers is to generate visual images of what is being read (Carnine and Kinder, 1985). For the reader to generate images, he or she must first be able to recognize the word. Assuming the reader knows how to recognize words, he or she needs concepts to visualize the flow of action represented on the page. The same kind of concept building techniques that work for average readers also work for slower readers. The slower reader, however, gains more from concrete experiences and images than from abstract discussions. It is not enough for the parent to simply tell the slower reader to use visual images—the parent has to describe the images that occur in his or her own mind as he or she reads a particular passage, thus giving the child a concrete sense of what visual imagery means. Pictures, physical action, demonstrations, practice using words in interviews or in an exchange of views among peers are only a few of the ways that parents, tutors, or teachers can make the key vocabulary take root in the reader's mind.

Helpful Reading Materials

As is the case with most learners, slower readers learn most comfortably with materials that are written on their ability level (Clark *et al.*, 1984). The reading level is of primary concern, but parents can help their reader select helpful materials in other ways. Choose stories or books with (1) a reduced number of difficult words; (2) direct, non-convoluted syntax; (3) short passages that deliver clear messages; (4) subheads that organize the flow of ideas; and (5) helpful illustrations. Older problem readers often find that the newspaper is a good choice for improving reading comprehension (Monda *et al.*, 1988). Slow readers can succeed with the same frequency as faster readers as long as the parent or tutor maintains a positive attitude and selects materials and approaches that accommodate the child's learning speeds.

Importance of a Positive Attitude

A positive attitude on the part of the child is also crucial to the treatment of difficulties in reading and learning. Tutors who have worked consistently with problem learners are very aware of the role of the self in energizing learning, and the potential damage to the sense of self-worth that comes from labeling. Teachers and parents should appreciate children's thinking as the foundation of their language abilities, and maintain some flexibility in their expectations regarding their children's development of decoding skills such as reading. For children to feel successful, they need to become aware of their unique learning strengths, so that they may apply them effectively while working to strengthen the lagging areas (Webb, 1992). The child needs to feel loved and appreciated as an individual, whatever his or her difficulties in school.

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Goal 4: Science and Mathematics

By the year 2000, U.S. students will be first in the world in science and mathematics achievement.

Objectives

- Math and science education will be strengthened throughout the system, especially in the early grades.
- The number of teachers with a substantive background in mathematics and science will increase by 50 percent.
- The number of U.S. undergraduate and graduate students, especially women and minorities, who complete degrees in mathematics, science, and engineering will increase significantly.

ERIC Clearinghouse on Urban Education

Teaching Science Effectively to Limited-English-Proficient Students

By Francis X. Sutman, Ana Cha Guzman, and Wendy Schwartz

Good science education is essential to the future success of all students, as is proficiency in the English language. Since limited-English-proficient (LEP) students learn English language skills most effectively when they are taught them across the curriculum, it is especially productive to integrate science and English teaching. An integrated curriculum that teaches science in a way that is understandable and meaningful to multicultural students, as it promotes increased English language proficiency, can be developed for students at all educational levels, and need not be taught by teachers with knowledge of the students' native languages.

While much of the science curricula currently in use is not effective for LEP students, new teaching methods and curricula are being developed that show great promise in their ability to provide students with a good education in both science and English. This Digest discusses and provides examples of these innovations. It also presents two reference lists: one offers general references on the subject, the other specifically addresses curriculum and instruction.

Current Science Achievement Status of LEP Students

Schools with large Hispanic/LEP and other minority populations have habitually clustered these students into low ability tracks without first determining their actual abilities or potential for academic success. The result of this discriminatory practice is the severe underrepresentation of minorities in advanced science and mathematics classes, and thus, in careers requiring advanced level science or math skills.

In fact, although the overall high school completion rate among all 25- to 29-year-old individuals was nearly 80 percent during the 1977-90 period, for Hispanics it was only 60 percent. During the same period, the number of Hispanics who received college degrees in the sciences, compared with other racial and ethnic groups, dropped significantly and continuously. Further, while African Americans and Hispanics constitute 10 and 7 percent of the total professional workforce, respectively, the representation of each group in the scientific workforce is only 2 percent. This disproportionate representation of minorities is damaging not only to the future well-being of the individuals denied science careers, but to the nation as a whole, which cannot afford to waste any available talent if all its needs are to be met.

Early Science Education and English Language Development

Urban schools have a higher than average number of students with disadvantaged home environments that can compromise their ability to learn, and they also have large numbers of LEP students. A preschool science curriculum that includes English instruction can help young children overcome many obstacles to learning, however, and can prepare them for further effective schooling.

Such a curriculum must help young students make connections between their generation and those of the past in order for them to learn most successfully. Therefore, to best stimulate children's intellectual development, schools need to acquire a surer feel for contemporary cultural conditions. School people should become familiar with the diverse ethnic and cultural backgrounds of their students in order to draw on these differences to make instruction more meaningful and relevant. Below, a few examples of appropriate curricula are briefly described.

Experience with Plant and Animal Life

In particular, preschool students enjoy and learn from an environment that includes animals and plants. They learn to respond to stimuli and improve their language skills as they observe and handle living things, some of which may be an integral part of their native culture. Naturally motivated to describe, discuss, and compare plant and animal characteristics and behavior, nursery school children can readily overcome inhibitions to learning. They can also transfer the expanded knowledge of their own language gained through science activities to English. Moreover, experiences with description lay the groundwork for understanding the more abstract ideas presented in later science instruction.

Nutrition and Health Instruction

Learning about effective nutrition and health through the observation of the results of the various "diets" of living organisms increases young students' science knowledge as it helps them develop good eating habits. Simple experiments—such as demonstrating the variety of types of sugars in nature, not only the kind produced from cane—pique children's interest and provide information on the benefits (and costs) of eating certain categories of food. For students from homes where good nutrition is not stressed, knowledge about readily available, healthful, and inexpensive foods, if they act on it when they are able, can have an important impact on their health, and, thus, on their ability to learn.

K–12 Science Education and English Language Proficiency

At the elementary level, science, with its opportunities for hands-on experiences that allow students to see and feel the meaning of words instead of just hearing the definitions, is an excellent vehicle for second language development. In high school, proficiency in the language of instruction can be developed as science content is taught. Several premises are especially important to teaching science and English language skills simultaneously to LEP students:

Science content taught to LEP students should be the same as content taught to the other students. Science comprises the descriptions developed over time to explain how and why the environment operates as it does, and these understandings are universal, not more or less appropriate for members of certain cultures or races. In addition, universal access to an advanced science education is necessary to ensure equitable access to science career opportunities.

Cultural examples relevant to LEP students should be used to illustrate science content. An easy way to make science relevant to students is to point out the role it plays in their everyday lives. Explaining how water gets into their faucets and how heat gets into their radiators are two examples. Using students' own diets to explain the food chain and referring to agricultural practices in their native countries also personalize learning. Students should be encouraged to draw examples from their lives as a way of sharing information with students from different backgrounds, validating their own experiences, and learning to communicate in English.

In addition, it is important to point out language and other minority scientists who have made significant contributions to scientific knowledge in the U.S. Presenting such biographies promotes respect and admiration by all students for the accomplishments of people of many different backgrounds. Equally important, it provides students who share the culture of the scientists with a role model and, thus, with the hope they, too, can have a successful career in science. Inclusion of this social aspect of science also assists in reducing the density of the more difficult—and abstract—components of science content and reinforces vocabulary development.

Science instruction is most effective when the content is organized around common themes. The themes can be broad science concepts such as the nature of matter or magnetic energy; or they can be societal issues such as the pollution and purification of water or the impact of drugs on the physiology and behavior of living organisms. Regardless of topic, this approach puts scientific knowledge in a comprehensible context with relevance to students' lives, which increases the probability that students will continue to want to learn science and language on their own; extends the time over which a single topic is studied, allowing more time for understanding and reflection, and for repetition in the use of the English vocabulary; and reduces the propensity to overcrowd the curriculum with complex content and vocabulary.

Effective instructional strategies for curricula based on themes include hands-on experience in a cooperative learning environment. In addition, multiple references are needed, rather than a single textbook. Students, therefore, learn the value of investigating and comparing a variety of sources in order to learn, and are exposed to many types of writing and a larger English vocabulary.

English language development must be an integral objective of all science instruction. It is important to incorporate vocabulary development into science lessons both to ensure that students understand the science and to improve their English skills. Therefore, it is useful for teachers to review the English terms or names to be used in a lesson before it is begun; to help students label with stickers items to be used in an experiment; and to verbally describe what they are doing, using language appropriate to the students' proficiency level. They should follow up by asking students to repeat the activity and describe it in their own words, because reinforcing both language and science instruction through repetition increases learning.

One way for students to develop English language skills is for them to carry out investigations within a group of students with varying levels of English proficiency, and to engage in follow through activities that motivate them to use English. Examples of such activities include writing summaries of the procedures used and results of their investigations, writing to a friend about their project, preparing a verbal presentation on it, and drawing a picture of it and explaining the picture in writing or verbally. Group activities include publishing a newsletter, and writing and producing a play, including English language prompt cards.

There are many science trade books that discuss specific topics or present biographies of scientists for students at all education and English proficiency levels. After students read these alone or in groups, teachers should lead a discussion, pose and ask for questions, and in general integrate promotion of English comprehension and language development with learning the content of the books. If a teacher knows a student's native language, he or she can assist in translation where appropriate, but English should remain the primary language of instruction.

Instructional Techniques

A major goal of science instruction is to develop students' ability to interpret and apply what they have learned. While simply memorizing facts can earn students good grades on standardized tests, and traditional teaching methods focus on providing students with those discrete facts, real learning requires the ability to understand, not just to repeat, course material. Thus, instructional techniques must stress development of thinking skills as well as acquisition of science information.

In addition, because most students enter school with misconceptions about both natural phenomena and the explanations for them, science instruction should help students comprehend why their previous understandings are erroneous, not just correct them. In particular, since LEP students may come to school with experiences that are different from the other students', they need to be exposed to a wide range of stimuli and experiences.

Cooperative Learning Classroom Organization. Research and experience have demonstrated that the classroom organization strategy most effective for teaching science to LEP students is cooperative learning because it fosters language development through inter-student (and possibly written) communication. In classrooms where LEP students have varying degrees of English language proficiency or come from different language backgrounds, the groups should reflect these variations as much as possible.

To assure maximum involvement of all students within each group, each student should be assigned a specific task (i.e., chief experimenter, observer, recorder, mathematician) and should write down the nature of the assignment, perhaps also wearing an identification tag. Tasks should be rotated among the students from lesson to lesson to provide each student with the opportunity for varied contributions and experiences. If a

translator is needed, this role should be assigned to the students with proficiency in the primary language or in English. Students should be given ample opportunity to make choices and decisions, within the groups and personally, about how to organize their projects. They should be encouraged to evaluate their own work, to challenge each other's explanations and approaches within the group, and to discuss coursework with the teacher.

Inquiry/Discovery Method of Science Content Learning. In a discovery environment, students have the opportunity to find the answers to the questions they themselves pose about a topic. They develop their English language skills as they articulate the problems they have devised and verbalize their efforts to solve them, and they learn to learn on their own. Students should also be given ample opportunities to test their own ideas. Ideally, teachers should provide a variety of resources to support students' discovery activities. Among them are materials for science laboratory investigations; reference books, newspapers and magazines, and access to school and neighborhood libraries for additional materials; classroom visits from specialists in the community; field trips; films; and computer programs.

Lectures and demonstrations by teachers should be limited to use as summaries of what has been covered. They should not be used to convey new information because the purpose of the inquiry/ discovery technique is for students to find out science information through their own efforts.

In order to provide students with the opportunity to think about and apply science concepts and to formulate complete thoughts in English, teachers should pose open-ended questions for them to answer. They can help students answer both their own and the teachers' questions, but they should not supply the answers. Assistance can take the form of providing references, helping students to use English to express their questions and answers; and helping them develop investigations that will lead to answers. Also, teachers should take care to use complete sentences, appropriate diction, and correct grammar.

While this approach may result in coverage of less content, students will have a deeper understanding of the material that is covered, and will, ultimately, learn more because they learned not only some science concepts but also how to problem solve.

The inquiry/discovery method of science teaching is like the "whole or natural language" approach to teaching a new language. Whole language instruction deemphasizes pure memorization of language, stressing instead language skill development and comprehension through use of the language in a real world setting. Here, the real world setting is the science classroom.

It should be noted that the more traditional way of teaching science is the lecture/discussion method, where teachers "tell" the students what they are to learn, and then ask them to answer questions about what they heard, frequently providing the answers themselves if students don't respond quickly enough. This approach limits the learning experience for all students, for it gives them very little opportunity to discuss issues, solve problems, or ask their own questions, and, thus, to develop thinking skills. It is even less effective for LEP students since it is more dependent on students' understanding of what the teacher says, and it provides few occasions for students to speak, and, thus, practice their English skills.

Curriculum

As discussed above, curricula should help students understand the ways that science exists in their lives and promote English language proficiency. In addition, coursework can expand students' learning potential in ways such as these:

Integrating Science and Mathematics Teaching. As students pose and solve science problems, they will naturally require use of mathematics, so combining instruction in both subjects, along with English language skills development, reinforces learning of each. It is especially important for students to use mathematics to answer questions arising from their coursework; solving math problems they themselves have created will help them better appreciate math's practical usefulness. Further, integration of science, mathematics, and English language learning obviates the need for the common and fragmented English-as-a-Second-Language or remedial math "pull-out" instruction that is less effective and stigmatizing for students.

Instructing with Computers. Science and mathematics learning is an excellent context for teaching the computer skills likely to be needed in the work world. Computers can simulate ideas that otherwise are very abstract and, thus, difficult to understand. They can also simulate experiences and experiments too dangerous to engage in firsthand or requiring resources unavailable to students. Computers should not be used to substitute totally for hands-on experiences, however, for students need to see at least some science in action for it to be meaningful to them. Moreover, research has shown that computer instruction is most effective after students have had some real experiences.

Implementing the Innovations

Teacher Training. Since most teachers are educated to use the lecture/discussion instructional method, to help them switch to the inquiry/discovery method, they should be provided with inservice training, and, perhaps, with mentors who are already skilled in the method. The National Science Foundation is supporting training and enhancement programs to help teachers master the method.

Curriculum. New curriculum materials based on the inquiry/ discovery method are currently being developed, some with support from the National Science Foundation. Old curricula should be reviewed to determine whether the English language readability level is too high for LEP students, and revised as necessary.

Parent Involvement. Additional parent involvement may be required as parents are asked to provide materials and references at home, and to accompany their children's classes on field trips.

Assessment. A substantial effort to revise approaches to assessing students is underway nationally, for reasons that include bias in traditional assessments against LEP and other minority students. Traditionally, multiple choice standardized tests and poorly constructed classroom tests have measured students' ability to memorize science facts rather than their ability to understand and apply them. LEP students usually receive low scores on such tests, and, as a result, they are

unlikely to continue their science education. Thus, use of testing as a "gatekeeper" to determine which students are permitted to pursue advanced science studies must be eliminated if LEP students are to have such access.

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ED 357 113

ERIC Clearinghouse on Urban Education

Equal Mathematics Education for Female Students

By Wendy Schwartz and Katherine Hanson

Research over the last decade has shown that males and females have different classroom experiences because they approach learning differently and because teachers tend to treat them differently. Achievement expectations for females in some subjects are usually lower, as they are for members of certain racial and ethnic groups and for poor students.

Traditionally, females have found advanced mathematics achievement elusive. Girls' mathematic achievement in the elementary grades is equal to boys' but decreases in the middle school (Callahan and Clements, 1984; Dossey *et al.*, 1988). An analysis of math achievement of twelfth grade girls in 15 countries revealed that in all but three countries girls were less successful than boys (Hanna, Kundiger, and Larouche, 1990). That gender differences surface at age ten (Callahan and Clements, 1984; Dossey, Mulis, Lindquist, and Chambers, 1988) suggests that the decline of female achievement is the result of a strong pattern of socialization to mathematics rather than to gender differences in innate ability.

As girls progress through school, they are less likely to continue their math education, either taking more rudimentary courses or dropping the subject altogether (Pallas and Alexander, 1983).

This Digest reviews common teaching practices and methods of communication in the classroom—known as discourse—to indicate the treatment of female students that inhibits their ability to successfully learn math. It also identifies some negative attitudes about female mathematics achievement held by teachers and parents that may deter girls from continuing their math education.

Socialization Issues in Female Mathematics Achievement

Why females lose interest in math is the result of a number of factors, among them a decline in self-esteem and capitulation to the forces of socialization that encourage girls to focus on their bodies at the expense of a whole-person or achievement orientation. Historically, the adage, "math is not for girls," and the belief that girls should not reveal their intelligence lest it compromise their sexual desirability (and, thus, their social role as wife/mother), have combined to squelch girls' interest in advanced mathematics. Moreover, girls often are not given information about career possibilities requiring competence in advanced mathematics. Neither are they introduced to women role models with successful math careers, although, in general, role models can be an important factor in elevating a young person's aspirations.

At home, parents may unconsciously fail to provide support for their daughters' interest in math, either by directing their interests elsewhere or by giving their support for education to their sons. The attitudes of teachers and male students usually reinforce parents' message.

Gender Differences in Learning Styles

Evidence exists that males and females tend to approach learning from a different perspective, although the reasons for the differences continue to be debated.

In the classroom, females prefer to use a conversational style that fosters group consensus and builds ideas on top of each other; the interrelationship of thoughts and actions is paramount. Males learn through argument and individual activity—behaviors fostered early. Most classroom discourse is organized to accommodate male learning patterns (Ong, 1981).

In addition, females aren't likely to believe that math has utility in their lives (Fennema and Sherman, 1978); they see math as unconnected to a relationship model of thinking. Even if they take math courses, girls are apt to find that they don't like them, and liking a subject is key to succeeding at it (Lockhead, Thorpe, Brooks-Gunn, Casserly, and McAloon, 1985).

Traditional Teaching Methods and Curricula

The classroom structure, designed to foster independent non-collaborative thinking, is most supportive of white male, middle-class socialization models, and it continues through university (Pearson and West, 1991). It encourages sex-role stereotyped forms of communication—independence, dominance, assumption of leadership—in which males have been trained to excel. Women, conversely, feel uncomfortable and excluded in situations requiring such behavior; yet, their participation—as questioners as well as newly-minted authorities—may be critical to knowledge acquisition and school success. The importance that women place on mutual support, building collaborative knowledge, and applying it practically is devalued compared to the importance of individual expertise to males and their inclination to debate abstract concepts.

Math curricula often exploit the differences between males and females by drawing on their different early play experiences. Action toys for boys teach core mathematics concepts (velocity, angles, three-dimensional configurations), while girls usually experience these concepts for the first time in a classroom.

The Role of Teachers in Learning

Teachers set the standard for discourse. Their reliance on teaching methods that adhere to traditional norms and beliefs about gender differences, and that benefit only male students, can create a "chilly climate" for girls (Sandler, 1982; Kramaerae and Treichler, 1990).

Teachers, believing that participation is an indicator of learning, are likely to ignore females because they participate less than males. Moreover, teachers are often unaware that they are concentrating on teaching males because the process of classroom interaction is unconscious, and they respond automatically to student demands for attention. Males demand more attention, complain more that they are not receiving enough, and their teachers and female peers expect them to get it. Analyses of classroom discussions involving children between the ages of 9 and 11 in different settings revealed that boys took three times as many turns speaking (Redpath and Claire, 1989), and a study of college-age students demonstrated that men dominate discussions even more as they get older, in some classes speaking as much as 12 times longer than women (Krupnick, 1985).

Even when females do participate in classroom talk, their approach may suggest to teachers they have less command over the subject matter than males. Girls are more likely to ask questions, acknowledge the comments of previous speakers, and refrain from interrupting exchanges in progress. In other words, their classroom conduct is consonant with accepted sex-role behavior that compromises women's assertiveness (Hendrick and Strange, 1989). In comparing the participation patterns of males and females, teachers are apt to treat females' discourse contributions with less respect because girls exhibit less authority. In allowing classroom discourse to parallel sex-role differences in society, teachers unconsciously pass on negative expectations for girls.

Recommendations for Encouraging Mathematics Achievement

Since goal four of the National Education Goals is to promote students' science and mathematics achievement, and since sex equity in general is a societal goal, it is crucial to remove the barriers that prevent females from learning advanced mathematics.

A first step is an attitude change. If parents believe that their daughters can succeed in math and master technology, they will provide them with toys that promote math learning readiness and will encourage them to sustain their perseverance in math courses. If teachers understand and respect female learning styles, they will alter classroom discourse to accommodate girls' participation and provide a message to both males and females that no single learning behavior is superior to another.

Equally important are concrete changes in teaching methods and curricula. Cooperative learning that promotes collegiality between male and female students is one approach. Structuring lessons around the thinking processes needed to arrive at answers to questions rather than focusing on the answer itself is another. Math problems can reflect girls' experience (although they shouldn't be limited to stereotypically female concerns, such as cooking and sewing) and can emphasize real life applications.

Providing opportunities for girls to interact as peers, separate from the co-ed classroom, can also strengthen their interest and participation in math as well as other school subjects.

Finally, gender bias in education and career counseling should be eliminated. Only when females are convinced that they can both learn advanced mathematics and use it for professional success will full integration of math classrooms occur.

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For a fuller discussion of this topic, see the monograph *Teaching Mathematics Effectively and Equitably to Females* by Katherin Hanson, Education Development Center, upon which this Digest is based.

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ERIC Clearinghouse for Science, Mathematics, and Environmental Education

Communicating the Next Message of Reform through the Professional Standards for Teaching Mathematics

By Shirley M. Frye

To achieve the vision of a high-quality mathematics education for every child, the National Council of Teachers of Mathematics (NCTM) has provided leadership in the establishment of standards for the reform of teaching and learning mathematics. These statements of what is valued were communicated first in *Curriculum and Evaluation Standards for School Mathematics* (NCTM), released in March, 1989. The companion document, *Professional Standards for Teaching Mathematics* (NCTM), was presented in March, 1991. Together, these standards reflect NCTM's long-term commitment to the reform of school mathematics.

What is the Vision of Teaching Mathematics in the Professional Standards?

The teaching envisioned in the *Professional Standards for Teaching Mathematics* is significantly different from what many teachers themselves have experienced as students. Woven into the fabric of these standards are major shifts that will empower students:

- Shift toward classrooms as mathematical communities and away from classrooms as simply a collection of individuals.
- Shift toward logic and mathematical evidence as verification and away from the teacher as the sole authority for right answers.
- Shift toward mathematical reasoning and away from mere memorization of procedures.
- Shift toward conjecturing, inventing, and problem solving and away from merely emphasizing finding the correct answer.
- Shift toward connecting mathematics, its ideas, and its applications and away from mathematics as a body of isolated concepts.

What are the Fundamental Assumptions that Underlie the New Vision?

Underlying the new vision are two fundamental assumptions:

- Teachers are the key to changing the way in which mathematics is taught and learned. If teachers are to create learning environments that empower students, teachers need time and resources to develop the professional teaching skills envisioned here. They must have ongoing professional development opportunities, flexibility, and instructional and assessment materials that are consistent with the *Curriculum and Evaluation Standards*.
- Teachers must have long-term support and adequate resources. This vision of teaching mathematics requires that teachers be supported, encouraged, and rewarded by administrators, parents, and the community. This kind of recognition and collective support will take time to develop, but it is a principle element in effective change in the classroom environment.

Standards for Teaching Mathematics

All students possess the innate power to think and reason mathematically. The standards in this section address the specific decisions that teachers make in the classroom to foster mathematical thinking, reasoning, and problem solving. They are based on the following assumptions:

- The goal of teaching mathematics is to help all students develop mathematical power.
- *What* students learn is fundamentally connected with *how* they learn it.
- All students can learn mathematically.
- Teaching is a complex practice and hence not reducible to recipes or prescriptions.

The standards are organized around framework emphasizing the important decisions that a teacher makes in teaching:

- Setting goals and selecting mathematical tasks to help students achieve these goals.
- Stimulating and managing classroom discourse so that both students and teacher are clear about what is being learned.
- Creating an environment to support teaching and learning mathematics.
- Analyzing student learning, the mathematical tasks, and the environment in order to make ongoing instructional decisions.

Standards for the Evaluation of the Teaching of Mathematics

These standards are intended to help teachers attain the vision of the *Curriculum and Evaluation Standards* by emphasizing the role that evaluation can play in teachers' professional development. Accordingly, these standards focus on how and what information should be gathered and analyzed to help teachers improve their teaching. The standards are based on four assumptions:

- The goal of evaluating the teaching of mathematics is to improve teaching and enhance professional growth.
- All teachers can improve their teaching of mathematics.
- What teachers learn from the evaluation process is related to how the evaluation is conducted.

- Because teaching is complex, the evaluation of teaching is complex. The consistent theme is that the major purpose of evaluation is the improvement of teaching. The standards give guidance to teachers seeking self-improvement, to colleagues mentoring others, and to supervisors and others who are involved in the evaluation of teaching.

Standards for the Professional Development of Teachers of Mathematics

These standards address the pre-service and continuing education of teachers of mathematics at the K–12 levels. They apply to introductory programs that prepare teachers of mathematics and various continuing education activities. They are based on the following assumptions:

- Teachers are influenced by the teaching they see and experience.
- Learning to teach is a process of integration.
- The education of teachers of mathematics is an ongoing process.
- There are level-specific needs in the education of teachers of mathematics.

These teaching standards provide essential guidance to colleges, universities, and schools; state departments and provincial ministries of education; public and private schools; and all who are part of the preparation and professional development of teachers. These standards address:

- Modeling good mathematics teaching.
- Knowing mathematics and school mathematics.
- Knowing students as learners of mathematics.
- Knowing mathematical pedagogy.
- Developing as a teacher of mathematics.
- Teachers' roles in professional development.

Standards for the Support and Development of Mathematics Teachers and Teaching

These standards spell out the responsibilities of those who make decisions that affect teaching mathematics. The environment in which teachers teach is as important to their success as the environment in which students learn is to theirs. The standards identify the groups that must play a supportive role in achieving effective mathematics education:

- Policymakers in government, business, and industry.
- Schools and school systems, including administrators and board members.
- Administrators in colleges and universities.
- Leaders in professional organizations.

Annotated vignettes are used to elaborate the visions of teaching, evaluation of teaching, and professional development. The narratives are meant to be like video clips to provide brief vivid glimpses into diverse settings to animate the standards. The vignettes present identifiable classroom situations that enable teachers to visualize other teachers in action and to examine a range of approaches that they might take in all aspects of their own work, from posing problems to students to analyzing their own performance. The vignettes, which display vividly the richness of mathematical learning, were gathered from actual experiences of educators with students from diverse cultural, linguistic, and socioeconomic backgrounds.

Next Step

Dialogue on school reform is taking place on many fronts. In local areas, individual schools, districts, and universities are approaching change in different ways and taking steps in different sequences. Various combinations of ideas and strategies will provide many alternatives to achieve the goals of reforming mathematics teaching and learning. The common characteristics will be the long-term commitment and the cooperative efforts of all teachers, administrators, parents, other educators, and policymakers. All who have responsibility for any part of the support and development of mathematics teachers and teaching are challenged to use these standards as a basis for discussion that leads to actions for making changes to meet the goal of a high-quality mathematics education for every child. As the standards remind us: We must be impatient enough to take action, but patient enough to sustain our efforts until we see results.

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Teaching Science Through Inquiry

By David L. Haury

If a single word had to be chosen to describe the goals of science educators during the 30-year period that began in the late 1950s, it would have to be inquiry. (DeBoer, 1991. p. 206)

In a statement of shared principles, the U.S. Department of Education and the National Science Foundation (1992) together endorsed mathematics and science curricula that "promote active learning, inquiry, problem solving, cooperative learning, and other instructional methods that motivate students." Likewise, the National Committee on Science Education Standards and Assessment (1992) has said that "school science education must reflect science as it is practiced," and that one goal of science education is "to prepare students who understand the modes of reasoning of scientific inquiry and can use them." More specifically, "students need to have many and varied opportunities for collecting, sorting and cataloging; observing, note taking and sketching; interviewing, polling, and surveying" (Rutherford and Algren, 1990).

Distinguishing Features of Inquiry-Oriented Science Instruction

Inquiry-oriented science instruction has been characterized in a variety of ways (Collins, 1986; DeBoer, 1991; Rakow, 1986) and promoted from a variety of perspectives. Some have emphasized the active nature of student involvement, associating inquiry with "hands-on" learning and experiential or activity-based instruction. Others have linked inquiry with a discovery approach or with development of process skills associated with "the scientific method." Though these various concepts are interrelated, inquiry-oriented instruction is not synonymous with any of them.

From a science perspective, inquiry-oriented instruction engages students in the investigative nature of science. As Novak suggested some time ago (1964), "Inquiry is the [set] of behaviors involved in the struggle of human beings for reasonable explanations of phenomena about which they are curious." So, inquiry involves activity and skills, but the focus is on the active search for knowledge or understanding to satisfy a curiosity.

Teachers vary considerably in how they attempt to engage students in the active search for knowledge; some advocate structured methods of guided inquiry (Igelsrud and Leonard, 1988) while others advocate providing students with few instructions (Tinnesand and Chan, 1987). Others promote the use of heuristic devices to aid skill development (Germann, 1991). A focus on inquiry always involves, though, collection and interpretation of information in response to wondering and exploring.

From a pedagogical perspective, inquiry-oriented teaching is often contrasted with more traditional expository methods and reflects the constructivist model of learning, often referred to as active learning, so strongly held among science educators today. According to constructivist models, learning is the result of ongoing changes in our mental frameworks as we attempt to make meaning out of our experiences (Osborne and Freyberg, 1985). In classrooms where students are encouraged to make meaning, they are generally involved in, "developing and restructuring [their] knowledge schemes through experiences with phenomena,through exploratory talk and teacher intervention" (Driver, 1989). Indeed, research findings indicate that, "students are likely to begin to understand the natural world if they work directly with natural phenomena, using their senses to observe and using instruments to extend the power of their senses" (National Science Board, 1991, p.27)

In its essence, then, inquiry-oriented teaching engages students in investigations to satisfy curiosities, with curiosities being satisfied when individuals have constructed mental frameworks that adequately explain their experiences. One implication is that inquiry-oriented teaching begins or at least involves stimulating curiosity. There is no authentic investigation or meaningful learning if there is no inquiring mind seeking an answer, solution, explanation, or decision.

The Benefits of Teaching Through Inquiry

Though some have raised concerns about extravagant claims made for science instruction based on activities and laboratory work (Hodson, 1990), studies of inquiry-oriented teaching (Anderson *et al.*, 1982) and inquiry-based programs of the 1960s (Mechling and Oliver, 1983; Shymansky *et al.*, 1990) have been generally supportive of inquiry approaches. Inquiry-based programs at the middle-school grades have been found to generally enhance student performance, particularly as it relates to laboratory skills and skills of graphing and data interpreting (Mattheis and Nakayama, 1988). Evidence has also been reported that shows inquiry-related teaching effective in fostering scientific literacy and understanding of science processes (Lindberg, 1990), vocabulary knowledge and conceptual understanding (Lloyd and Contreras, 1985, 1987), critical thinking (Narode *et al.*, 1987), positive attitudes toward science (Kyle *et al.*, 1985; Rakow, 1986), higher achievement on tests of procedural knowledge (Glasson, 1989), and construction of logico- mathematical knowledge (Staver, 1986). It seems particularly important that inquiry-oriented teaching may be especially valuable for many underserved and underrepresented populations. In one study, language-minority students were found to acquire scientific ways of thinking, talking, and writing through inquiry-oriented teaching (Rosebery *et al.*, 1990). Inquiry-oriented science teaching was shown to promote development of classification skills and oral communication skills among bilingual third graders (Rodriguez and Bethel, 1983). Active explorations in science have been advocated for teaching deaf students (Chira, 1990). Finally, experiential instructional approaches using ordinary life experiences are considered to be more compatible with Native American viewpoints than are text-based approaches (Taylor, 1988).

Caution must be used, however, in interpreting reported findings. There is evidence of interactions among investigative approaches to science teaching and teaching styles (Lock, 1990), and the effects of directed inquiry on student performance may vary by level of cognitive development (Germann, 1989). There seems also a possible conflict of goals when attempting to balance the needs of underachieving gifted students to develop more positive self-concepts with the desire to develop skills of inquiry and problem solving (Wolfe, 1990).

It must also be emphasized that an emphasis on inquiry-oriented teaching does not necessarily preclude the use of textbooks or other instructional materials. The Biological Sciences Curriculum Study materials are examples of those that include an inquiry orientation (Hall and McCurdy, 1990; Sarther, 1991). Other materials have been identified by Haury (1992). Several elementary school textbooks have been compared (Staver and Bay, 1987) and a content analysis scheme for identifying inquiry-friendly textbooks has been described (Tamir, 1985). Duschl (1986) has described how textbooks can be used to support inquiry-oriented science teaching. As mentioned by Hooker (1879, p.ii) years ago, "No textbook is rightly constructed that does not excite [the] spirit of inquiry."

As instructional technology advances, there will become more options for using a variety of materials to enrich inquiry-oriented teaching. Use of interactive media in inquiry-based learning is being examined (Litchfield and Mattson, 1989), and new materials are being produced and tested (Dawson, 1991). Use of computerized databases to facilitate development of inquiry skills has also been studied (Maor, 1991).

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Goal 5: Adult Literacy and Lifelong Learning

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Objectives

- Every major American business will be involved in strengthening the connection between education and work.
- All workers will have the opportunity to acquire the knowledge and skills, from basic to highly technical, needed to adapt to emerging new technologies, work methods, and markets through public and private educational, vocational, technical, workplace, or other programs.
- The number of high-quality programs, including those at libraries, that are designed to serve more effectively the needs of the growing number of part-time and mid-career students will increase substantially.
- The proportion of those qualified students (especially minorities) who enter college, who complete at least two years, and who complete their degree programs will increase substantially.
- The proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively, and solve problems will increase substantially.

ERIC Clearinghouse on Adult, Career, and Vocational Education

Workplace Literacy: Lessons from Practice

By Sandra Kerka and Susan Imel

The fifth national education goal established in September 1990 states that "by the year 2000 every adult American will be literate and will possess the skills necessary to compete in a global economy and to exercise the rights and responsibilities of citizenship" (National Governors' Association, 1990, p. 11). To reach the goal of universal literacy in the United States, five objectives were established. The second of these objectives—all workers will have the opportunity to acquire the knowledge and skills needed to adapt to constantly emerging new technologies, new work methods, and new markets through public and private vocational, technical, workplace, or other innovative programs—is the focus of this Digest. Designed to furnish readers with information that can be used in implementing goal five, it provides practice illustrations gleaned from workplace literacy programs. Following a brief overview of the status of workplace literacy, project highlights that are potentially useful to program developers are described. It concludes with resources that can be consulted for additional information.

The Status of Workplace Literacy

During the 1980s, workplace literacy was catapulted to national prominence by the perception that, as a nation, the United States was losing its competitive edge. Viewed by many as a solution to the nation's economic woes, the area of workplace literacy became a growth industry within the education and training community. Workplace literacy programs were developed with the goal of raising workers' basic skills so that they could perform more effectively in increasingly complex work environments. Many diverse strategies and programs have been implemented to address the need for a better educated work force (Imel, 1992). Because of the nature of workplace literacy programs, there are no accurate estimates of numbers of programs and participants. Since 1988, however, more than 200 programs have been funded under the U.S. Department of Education's National Workplace Literacy Program, including several that are statewide initiatives.

Due to increased federal and state support for workplace literacy efforts, more project descriptions are available. Although workplace literacy programs must be customized to a particular work environment and workplace culture, the program descriptions provided here have special features that illustrate innovative approaches to basic skills development and/or they encountered particular problems that provide useful information to program developers about what works and doesn't work (Imel and Kerka, 1992).

Program Descriptions

SALSA (Southwest Advanced Learning System for Adults) (1991) Project SALSA capitalized on several trends in its unique approach to workplace literacy: home computer use, family literacy, and productivity improvement through human resource development. Building on the known link between computer-assisted instruction and literacy enhancement, Macintosh microcomputers were placed in the homes of Motorola production line employees in Arizona. Following 14 hours of training, employees used home computers to access structured lessons in reading, language, math, spelling, and critical thinking available through NovaNet, a software library at the University of Illinois. Recommendations include the following: expert trainers to provide system training at a pace that ensures understanding; troubleshooters/technical support staff who are local and accessible; a shared-cost purchase program to enable employees to buy the microcomputers in their homes; and a software library to ensure that computer use and learning continue after the project ends.

Workplace Literacy Instruction for College Preparation of Health Care Workers (Perin, 1992) The shortage of health care workers for technical positions prompted this program designed to prepare health care paraprofessionals for college programs and advancement to these positions. Although the paraprofessionals had high school diplomas or equivalencies, their low literacy skills prevented them from entering college programs. The 153 participants were taught in union facilities 6 hours per week for 8 months, on their own time. The curriculum, based on literacy task analysis of college health occupations programs and textbooks, included reading, writing, and math directly related to health care job practices. Collaborative learning, videotaped biology and chemistry lectures for independent study, and college preparatory educational counseling were also featured. A committee of student representatives provided ongoing feedback about participant concerns and reactions. Recommendations were as follows: initial screening for reading and math as well as writing, then individualized instruction to focus on an individual's weaker areas; pre- and postprogram assessment of career-related motivation and career knowledge; a "tryout" orientation to college preparation to help people determine their motivation for a long-term program; accommodation for those who find instruction too fast paced (for example, peer tutoring); college placement tests taken immediately after program completion to maximize the effects of the program; and ongoing support (such as tutoring and counseling) provided throughout college.

Workers' Education for Skills Training (O'Gorman, 1991) The Saskatchewan Federation of Labour (SFL) adapted Ontario Federation of Labour's BEST program to meet the special needs of low-literate workers in the province. W.E.S.T. (Workers' Education for Skills Training) was designed to address the following needs: more SFL members in the service sector than in manufacturing, the geographic isolation of sites, and the English as a second language (ESL) needs of Canada Natives. Based on the premise of literacy for empowerment, W.E.S.T. focused on participatory learning. Thirteen workers, from six companies whose workers were SFL members,

attended a 2-week residential training program for course leaders. They returned to their worksites certified to implement programs, which featured cooperative learning, self-pacing, confidentiality in regard to individuals' skill levels, and curriculum materials created and developed by participants. Recommendations include the following: programs should begin with the premise that low-literate persons already know how to learn for they have used coping skills for years; training manuals should include more cross-cultural materials; course leaders should have English communication skills and perhaps should know other languages in programs featuring ESL, and they should respect other cultures and have a collective leadership style; and rigorous, documented evaluation of a program's effects on skill levels is needed to demonstrate its worth to employers.

Competitive Skills Project (1992) Workers with limited written and verbal skills cannot participate fully in total quality management (TQM), a concept being used in business and industry to ensure continuous attention to the quality of products and services by all members of an organization. Thus, the goal of the Competitive Skills Project (CSP) was to improve chemical industry workers' skills for implementing quality principles and technological innovation. Needs assessments, literacy audits, and task analyses were used to develop context-based customized curricula in three areas: language-based literacy (e.g., understanding instructions, following directions), numerical literacy (e.g., understanding specifications, implementing statistical techniques), and basic computer literacy. The following recommendations were made: consistency of project staff and business partners is critical to effectiveness; cooperation of line supervisors should be ensured in such areas as release time for class attendance and acceptance of TQM input from newly trained employees; and formulation of customized curricula is an ongoing process requiring continual modification.

Rural Workplace Literacy Project (1991) California agribusinesses deal with increasingly complex agricultural technology and an emphasis on quality control in production, but many of their workers are temporary, nonnative English speakers. The Rural Workplace Literacy Project provided literacy classes at 15 worksites to 264 migrant and seasonal farmworkers, the majority with limited English proficiency and less than a sixth-grade education. A core curriculum for agriculture was tailored to each site and included whole language, cooperative learning, and problem-posing approaches. The curriculum emphasized communications in the workplace and life skills for entering mainstream U.S. society. Recommendations were as follows: a core curriculum should emphasize math and a broad matrix of communication skills; employers need to be informed about the benefits and implications of workplace literacy, particularly the connection to productivity; the diversity of levels and objectives among students could be addressed with a variety of peer support techniques (tutoring, small practice groups, discussion circles, homework groups), giving workers an opportunity to practice teamwork skills; and individualized educational plans should be practical instruments expressing reasonable learning expectations.

Resources for Further Information

A number of groups and organizations provide information on workplace literacy. Two that are national in scope are described here.

Adult Learning and Literacy Clearinghouse, Division of Adult Education and Literacy, U.S. Department of Education, 400 Maryland Avenue, S. W., Mary E. Switzer Building, Room 4428, Washington, DC 20202-7240; 202/732–2396. Provides a variety of information on workplace literacy including two publications featuring the National Workplace Literacy Program (NWLP): *Workplace Education: Voices from the Field* (1992) and *Workplace Literacy: Reshaping the American Workforce* (1992). The latter is a source of information on exemplary projects funded by the NWLP.

ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment (CETE), 1900 Kenny Road, Columbus, OH 43210-1090; 614/292–4353; 800/848–4815. Free publications on the topic of workplace literacy include Digests and Trends and Issues Alerts. Also developed *Workplace Literacy: A Guide to the Literature and Resources*, which includes an extensive annotated bibliography of workplace literacy resources and program descriptions. (Available as IN 352 from CETE's Publication Office for $7.00 plus $3.50 shipping and handling.) Provides information services including searches of the ERIC database, which contains many project and program descriptions.

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The Secretary of Labor's Commission on Achieving Necessary Skills

By Deborah Whetzel, American Institutes for Research

What skills will prepare our youth to participate in the modern workplace? What skill levels do entry-level jobs require? In 1990, Elizabeth Dole, then Secretary of the Department of Labor, established the Secretary's Commission on Achieving Necessary Skills (SCANS) to answer these questions.

What Are Workplace Skills?

To find meaningful work, high school graduates need to master certain workplace skills. SCANS calls these essentials *foundation skills* and *competencies.*

Workers use foundation skills—academic and behavioral characteristics—to build competencies on. Foundation skills fall into three domains:

- *basic skills*—reading, writing, speaking, listening, and knowing arithmetic and mathematical concepts;
- *thinking skills*—reasoning, making decisions, thinking creatively, solving problems, seeing things in the mind's eye, and knowing how to learn; and
- *personal qualities*—responsibility, self-esteem, sociability, self-management, integrity, and honesty.

Competencies, however, more closely relate to what people actually do at work. The competencies that SCANS has identified fall into five domains:

- *resources*—identifying, organizing, planning, and allocating time, money, materials, and workers;
- *interpersonal skills*—negotiating, exercising leadership, working with diversity, teaching others new skills, serving clients and customers, and participating as a team member;
- *information skills*—using computers to process information and acquiring and evaluating, organizing and maintaining, and interpreting and communicating information;
- *systems skills*—understanding systems, monitoring and correcting system performance, and improving and designing systems; and
- *technology utilization skills*—selecting technology, applying technology to a task, and maintaining and troubleshooting technology.

How Did SCANS Identify and Define the Skills?

SCANS began a five-step process by first formulating its approach to identifying the skills:

- asking commissioners for their comments and suggestions,
- visiting successful corporations that stress high-level employee skills, and
- reviewing recent research and discussing skills with researchers and analysts.

Next, in a workshop, a panel of experts reviewed this research and suggested a draft set of initial skills. In clear, understandable terms, these skills describe what capabilities American workers need.

Third, to define those skills, SCANS reviewed the literature from psychological, education, and business data bases. The definitions that SCANS wrote include a description of the skill itself and an illustration of a worker competently using the skill.

In the fourth stage, SCANS asked research and business experts, among others, to review the skills and definitions to determine whether anything was missing in any domain. These experts also reviewed some examples of how workers might use the skills.

Fifth, SCANS analyzed jobs in various areas of the economy to see how the skills apply. SCANS chose a sample of 50 jobs to represent the various employment sectors identified by the Department of Labor. These 50 jobs

- are part of a career path,
- are expected to make up a large proportion of jobs in the future economy, and collectively,
- require diverse skills.

Examples included farmer, cosmetologist, personnel specialist, and law enforcement officer.

For this job analysis, SCANS asked job experts to review the skill definitions and to rate how critical each skill is to the jobs. For any skill that the experts considered highly critical, SCANS

asked them to detail a task requiring a worker to use that skill. Then, SCANS asked the job experts about critical incidents that would demand workers to proficiently use the skills.

SCANS used the data from the job analysis to evaluate how clear and comprehensive job experts found the skill definitions, and to estimate how critical the skills are across a range of jobs.

How Did SCANS Identify Levels of Skill Difficulty?

Besides defining workplace skills, SCANS studied the proficiently required of workers in each foundation skill and competency.

SCANS scaled the job tasks identified in the job analysis and asked 20 people to rate the skill level required to effectively perform each job task. These scaled tasks will become benchmarks for each skill, illustrating several levels of difficulty for the skills.

What Are the Next Steps?

SCANS has two other charges:

- suggest effective ways to assess proficiency, and
- develop a dissemination strategy for homes, schools, unions, and businesses.

To find ways to assess proficiency, SCANS will consider and report on the issues involved in assessing students. These issues include authentic assessment that employers could use in academic and hiring decisions.

To develop a dissemination strategy, SCANS will study issues that must be considered before schools can integrate instruction in the competencies into current programs. These issues include financial considerations as well as teacher training and curriculum concerns.

Despite some disagreement over the relevance of these skills (Samuelson, 1991), Lynn Martin, the new Department of Labor Secretary, supports the ideas discussed in the first SCANS report. She believes that in today's economy, we must do more than educate students about reading, writing, and arithmetic: "Diplomas must reflect the demands of a changing workplace for broader skills beyond the 3 Rs" (Martin, 1991).

According to William E. Brock, the chair of SCANS, the end product "must include the publication of necessary functional and enabling skills which society must provide to every child in this country by the age of 16. Our mission, once these are enumerated, must be to bring the progressive forces of this country to bear on those changes in public education which would allow us to meet the stated objective. Every school would be affected, every child would be affected, every workplace would be affected."

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Challenging the "Revolving Door Syndrome"

By Jan Ignash

Of the 5,376,000 students projected by the *Chronicle of Higher Education* to attend two-year institutions in 1993, a fair number will be caught in the "revolving door syndrome." The revolving door syndrome refers to the ease with which students are able to enroll in community colleges and the equal ease with which they can drop out. Searching for successful strategies to assist in retaining students until they achieve their educational goals is a problem for many community colleges. Traditional strategies for improving student retention rates have focused on assessment and placement, orientation, counseling and academic advising, developmental education, flexible and experimental instructional techniques, use of peer tutors, faculty support and inservice training, and ancillary support services (Roueche, 1983; Bushnell, 1991; Seidman, 1991). While many exemplary student retention programs are currently operating in community colleges across the country, it is regrettably beyond the scope of this Digest to mention more than a handful of them. The five descriptions below of exemplary community college retention programs provide practical suggestions concerning strategies which have fostered improved student retention.

An Intervention Strategy for Stop-Outs: St Louis Community College

St. Louis Community College has instituted a number of programs aimed at increasing student retention. Past efforts involved advising and counseling, academic support, academic early warning systems, new-student orientation, and increased student activities (Tichenor and Cosgrove, 1991, p. 74). Over six years, however, none of the programs resulted in significant improvement of fall-to-spring student retention rates. Institutional surveys conducted between 1984 and 1989 revealed that roughly half of the non-returning students had completed their educational goals and could be considered "success" stories, while an average of 31 percent had "stopped out" between fall and spring, usually for job conflict or personal reasons. Of the 31 percent stop-out students, an average of 16–17 percent actually re-enrolled the following fall. College officials decided that these stop-out students would be an effective target group for intervention strategies designed to promote retention.

In the summer of 1990 a random sample of students who enrolled in Fall 1989 but who failed to enroll the following spring semester 1990 were targeted for intervention. Two letters, signed by the Chancellor, were sent to students who had stopped out spring semester. The first letter indicated that the student had been missed at the college during the spring semester and expressed the college's continuing interest in the student. The second letter was a reminder of fall registration. Results indicated that for students who did not receive the letters, re-enrollment rates were 16.9 percent, consistent with earlier years. The return rate for intervention group students, however, was 18.6 percent overall, a statistically significant difference.

Several sub-groups showed even higher return rates. For white females, the return rate was 19.3 percent and for black males the rate was 22.4 percent. College officials concluded that it is worthwhile to survey non-returning students to discover whether they intend to return. If students indicate an intention to return, they should not be classified as drop outs, but should instead be considered "stop-outs" and targeted for intervention aimed at increasing retention rates.

Distinguishing Drop Outs from Stop-outs from Opt-outs: Del Mar College

A program instituted at Del Mar College in Texas parallels that of St. Louis Community College described above in that it differentiates between drop outs, opt-outs and stop-outs in setting retention policies. After a survey of 2,313 students who were enrolled Fall 1990 but did not return to Del Mar College in Spring 1991, college officials discovered that among the most important reasons cited by both returning and non-returning students for attending Del Mar were those citing a need for "personal improvement" and "to be with interesting people" (Artman and Gore, 1992, p. 3). These reasons were rated higher than those regarding transfer and job options. Results of the Del Mar survey seem to indicate, then, that college administrators need to look at providing an appropriate social/cultural background for today's students. Specific suggestions for improving retention based on the Del Mar study involved incorporating a more personal touch between the institution and the incoming students. Recommended strategies include establishing a standardized educational plan for all undeclared majors, using trained Advising Center staff to advise students on course selection and programs rather than college faculty or other personnel who may not always be well-trained in advisement, using student government organizations to canvass students and keep in touch with their wants, providing public relations staff to assist students during the first registration session, and providing training sessions to teach students how to use the college catalog to locate services. In dealing with the problem of retaining underprepared students, college officials recommended an aggressive study skills program along with a policy which would make it more difficult for students to drop unwanted or difficult classes the week before final exams. Students would be required to consult with instructors in person before dropping classes.

The "One-Stop Shopping Model:" Pennsylvania College of Technology

Studies have shown that students form pivotal impressions about the institution they will attend during the first week of school (Lenning *et al.* (1980) in Bushnell (1991). At Pennsylvania College of Technology in Williamsport, an

Advising Center Project begun in December 1984 and still in place today was aimed at ensuring that students who were accepted by the college actually enrolled in classes and found their way successfully through the critical first few days. This model program, termed the "One-Stop Shopping Model," was successful enough to earn a citation at the 1987 NACADA conference as an outstanding retention program. In the model, testing, advising, and scheduling of new students is all accomplished in one day. Other activities, such as distributing student ID cards, paying any necessary tuition deposits, touring campus facilities, and checking out local housing and meal plan options are also accomplished at this time. Afternoon academic orientation sessions which are department-specific, rather than campus-wide, are also held. At the orientation sessions, advisors and counselors assist students in planning their schedules and realistically appraising students' chances of success based on placement tests taken during the morning session. College officials also telephoned students who were scheduled for the one-day session but did not show up to ask if they wished to reschedule. The first year this "one-stop-shopping model" of student enrollment was implemented, the mean of students who were accepted and subsequently enrolled increased by 4 percent over the previous five years.

Sorting and Supporting: Miami-Dade Community College

At Miami-Dade Community College, "sorting" and "supporting" procedures, as defined in a typology developed by Beatty-Guenter (1992) are used to promote student retention (Beatty-Guenter, 1992, p. 8-9). Extensive entry assessment and placement procedures are required of all students after admission to place them in courses. Students are "sorted" into classes based upon their assessment test scores in reading, mathematics, and writing and it is felt that retention is promoted when students are placed appropriately. After placement, students are "supported" throughout their academic program at the college through an outreach program which expresses institutional concern. One of the intervention strategies which college officials claim has reduced their dropout rate involves contacting students if they miss classes (Roueche and Baker in Beatty-Guenter, 1992). A second strategy involves the use of computerized Advisement and Graduation Information System (AGIS) to show students not only what courses they have completed but also what courses are still required to complete their program.

Retaining Minority Students: The Puente Program

Implemented at 23 California community colleges, the Puente Program is an innovative retention and transfer program designed for Chicano and Latino students. The program's base rests upon a two-semester sequence of English courses team-taught by an English instructor and a Hispanic counselor. The counselor-teacher teams from all participating colleges receive inservice training in cultural and pedagogical issues at summer retreats. Another key component of the program is culturally based support, counseling, and mentoring by successful Hispanic community members who are paired with Puente students according to similar occupational interests. Chicano and Latino students are admitted into the Puente Program by placing at the remedial level in English. Academic progress is monitored throughout the program and counselors assist students with financial aid, budgeting, and family concerns. Puente students are also assisted through the peer support systems which develop naturally with other Puente students in their classes. A state-wide Puente Program office assists students in transferring to the University of California system.

Conclusion

Whether traditional or innovative, many community colleges today are striving toward excellence in assisting their students to remain in college long enough to achieve their educational goals. Successful retention policies foster a student's right to succeed. Active intervention strategies on the part of the college toward the student can thwart the revolving door syndrome and keep students enrolled long enough to accomplish what they set out to do.

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Innovative Programs and Promising Practices in Adult ESL Literacy

By Heide Spruck Wrigley, Aguirre International, San Mateao, CA

Adult English-as-a-Second-Language (ESL) literacy is a relatively new field that holds great promise for language and literacy teaching. Combining ideas from applied linguistics anthropology, and cognitive science, the field reflects many recent shifts in second language teaching and adult literacy education, including a greater emphasis on communication and "meaning making," consideration of how language and literacy are used in various social contexts, and greater use of the learners' native language in teaching literacy. There is also less of a philosophical split between those who teach grammar and phonics and those who use whole language and natural approaches. Teaching approaches now stress meaning making and communication while providing learners with the opportunity to focus on various aspects of grammar, spelling, and sound, either through direct teaching or through activities that promote language awareness. Finally, there is a shift from sole reliance on standardized tests to greater emphasis on alternative assessments that reflect the curriculum being taught and allow learners to showcase their strengths (Wrigley, 1992).

These are some of the findings of a national study funded under the National English Literacy Demonstration Program for Adults of Limited English Proficiency. Conducted by Aguirre International, a minority-owned research firm, the study involved an extensive literature review, an examination of 123 descriptions of ESL literacy programs, and visits to nine project sites (Guth and Wrigley, 1992.) The following examples are taken from the sites the researchers visited.

Innovative adult ESL literacy programs serve non-traditional students in non-traditional ways. Using practices supported by cognitive theory and research in second language acquisition, they promote second language acquisition as a process of meaning making that links the experience of the learner to culture, language, literacy, and learning. These programs are still the exception. In many conventional programs, literacy is taught as a set of skills, isolated from the personal experience of the learners and the social issues that inform their lives. Learners are expected to start with the letters of the alphabet, progress to syllables, advance to words, and then create sentences made up of these words. Innovative programs, using a communicative and social/contextual approach to literacy (Street, 1984; Auerbach, 1992; Weinstein-Shr, 1990), tend to follow another path: They have adapted approaches that introduce print in meaningful units, such as the names of the learners, their children, and their countries. To help contextualize ideas, print is supported by pictures from magazines, family photographs, and pictures drawn by learners. In many cases, stories about the learners and their communities and home countries are accompanied by discussions of the problems encountered in the U.S. (a landlord refuses to give back a deposit, other kids make fun of their children's accent). By starting with the images, concepts, words, and expressions that are familiar to the learners, rather than with the alphabet, (which constitutes a construct that many non-literate learners find difficult to work with), innovative programs provide opportunities for "meaning making" from the first day of literacy education.

Providing a Social Context for Literacy Education

Many innovative ESL programs now realize that literacy education is most effective if it is tied to the lives of the learners and their experience as community members, parents, and workers. To show how literacy can help adults understand and deal with social issues, some programs have set up community research projects that involve learners in collecting and analyzing data. At El Barrio Popular Education Program in New York, a program using Spanish and English, participants canvas several streets in their neighborhood, count the stores displaying bilingual signs, and interview .. merchants about the languages they used. Back in the classrooms, learners develop charts based on the information gathered to show how English and Spanish are used in commercial interactions in their East Harlem neighborhood. By using the community as a context for literacy, the program shows learners how to access, interpret, analyze, and synthesize information and connect school-based learning with community experience. Linking learning tasks with the realities of the community provides opportunities for both literacy development and social analysis.

Learning Through Hands-On Experience

ESL teachers have long known that linking verbal and non-verbal communication is an effective way of introducing English to non-literate adults. To that end, many innovative teachers provide learners with the opportunity to participate in hands-on learning tasks that initially do not require literacy. A group of learners, for example, might make fruit salad, using bananas, mangos, and papayas. Later, they might "write up" the recipe, using drawings to illustrate the process. As learners get better at forming letters, they add the fruits' names to the visual description. At Project REEP in Virginia, learners interview each other about their favorite foods, fill out grids that show the results of these surveys, and report results back to the group. As they become more proficient at reading and writing, they might make instant pudding, following instructions written on large signs, and then conduct taste tests and fill out food preference charts.

In the Workplace Literacy Project in Illinois, garment workers use work-related pictures and Total Physical Response activities to develop the vocabulary they need on the job. The women in the project speak very little English but have some literacy skills in their mother tongue. To aid and support communication, the teachers use flashcards and pictures of uniforms to teach English sentences such as "Put the baron jacket next to the high-low pants" or "Give the tux dress to your co-worker, Hwa." By designing tasks that are not dependent on print, these teachers allow adults with few literacy skills to learn job-related competencies.

Using Learner-Generated Materials

Creating a community of learners where all individuals and voices are equally respected is often difficult in classrooms where some learners read and write and others do not. Many teachers have found that stories written by other students can bring learners together around the shared opportunities of reading, talking, and writing about personal experiences or community concerns. A learner-centered approach has also been used successfully in programs where native speakers learn side by side with immigrants, as in the UAW/Chrysler program.

The Refugee Women's Alliance in Seattle publishes stories that contain women's remembrances of family celebrations and childhood memories, special events ("Nigisti's Wedding"), and special places ("Tom's House in Laos"). Illustrated by the women, these stories, many only a paragraph or two long, are bound together with a bright cover and shared with the community. Learner-generated stories have the ring of authenticity and the strong sense of voice that textbook stories often lack. Using learner-generated themes as a basis for discussion and literacy development also helps beginners to see that their ideas count as much as the ideas of those who are more proficient (Peyton, 1991).

Using the Native Language as a Bridge to English

Some programs have found that introducing literacy in the native language can serve as a bridge to ESL literacy. Native language literacy approaches have been used successfully in areas where non-literate learners share a common language, including Massachusetts (where the Haitian Multi-Service Center teaches literacy in Haitian Creole), Minnesota (the Lao Family Community uses Hmong), California (City College of San Francisco uses Spanish), and New York (El Barrio Popular Education Program). In many cases, native language literacy is the best approach for non-literate learners who have had few years of education, are unsure about their own ability to learn in a school setting, and speak little English. (Rivera, 1990; Spener, in press). While introducing literacy in the native language may not always be feasible because language groups are mixed, some programs have found other ways of using the native language to promote discussions, facilitate explanations, and help participants learn from each other. The Lao Family Community of Minnesota uses both English and Hmong to link the home culture of the learner with the mainstream community. Both languages are used in the beginning classes to strengthen the role of the Hmong parents and increase their understanding of the local school system. Stories from Hmong culture and notes, permission slips, and report cards from the schools that the children attend are used to build literacy in the two languages. Translation is often used to move between Hmong and English. To build basic knowledge in U.S. laws and conventions in a way that is congruent with Hmong values and traditions, speakers from community agencies work with the Lao Family staff to develop presentations on sensitive subjects such as child immunizations (many fear inoculations will hurt their children), marriage laws (traditionally Hmong girls have married very young), and hunting laws (the Hmong are not used to needing a license to hunt).

Linking Communicative Competence and Language Awareness

To find the proper balance between fluency and accuracy in English, especially in writing, most innovative programs put a primary focus on communication and a secondary focus on error correction. They try to set aside time for discussion of language issues, including explanations of the patterns and structure of English. Yet, in doing so, they are careful not to let discussions about phonics, spelling, or grammar interfere with the exchange of ideas (Wrigley and Guth, 1992). One promising way to link language awareness with meaning-based literacy is a process approach in which learners focus on meaning during the "creative" stages of writing (brainstorming ideas, class discussions, developing drafts), and on form during the revising and editing stages.

At the International Institute of Rhode Island, learners work in small groups to develop stories based on sets of pictures distributed by the teacher. As the group develops ideas, learners take notes. They then compose the story on newsprint. One learner acts as a scribe and checks spelling and word choices with the group before committing them to paper. Another member of the group then reads the story aloud in front of the class, using the picture to illustrate her points. After discussing the story, participants respond to the language used, asking questions to clarify meaning or making suggestions for improvement such as "the 'dress red' should say the 'red dress.'" In programs where learners share a common language, such as the Haitian Multi-Service Center, teachers may use contrastive analysis to show how the patterns and forms of English differ from those of Creole and French. They also may point out cognates to show similarities in the vocabulary of the languages.

Using Technology

While most of the innovative ESL programs we studied find only limited use for computers, video applications show great promise. By providing a visual context for ideas and by bringing the outside world into the classroom, video communicates ideas independent of print. As learners progress, videos can be used to show the connection between visual and printed information. El Paso Community College, in partnership with Levi Strauss, has developed a workplace literacy program centered around a set of videos shot at local garment manufacturing plants. The videos provide learners with a visual context for workplace themes (worker safety or the impact of new technology) and provide significant oral language input. Interspersed throughout are interviews with garment workers. After watching a video, learners read a short piece, discuss the topic from their own perspectives, and write a passage about their personal experience.

Conclusion

Although specific approaches in language teaching and literacy development differ, innovative programs have one thing in common: They help learners to access literacy and use it in ways that are meaningful to them. By focusing on meaning and communication and allowing grammar and phonics to be used as tools, not as ends in themselves, teachers are leading the way toward learner-focused teaching for adults who are new to literacy and English.

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ERIC Clearinghouse for Community Colleges

Critical Thinking in Community Colleges

By Shannon Hirose

The issue of critical thinking is being addressed at all levels of education throughout the nation. The complex problems of today's societies cannot be solved without reflective and critical thought. "Deep-seated problems of environmental damage, human relations, overpopulation, rising expectations, diminishing resources, global competition, personal goals, and ideological conflict" will need to be addressed by individuals capable of reflective and critical thought (Paul, 1992, p. 4). There is also widespread concern that many of today's youth lack even the basic skills to function effectively when they enter the workforce. A common complaint is that entry-level employees lack the reasoning and critical thinking abilities needed to process and refine information that is required for today's office-based jobs. With the modern work environment requiring more thinking and problem solving than the jobs of the past, community college teachers and administrators should address the issues of critical thinking on their campuses, in their curricula, and in their teaching practices in order to prepare their students to function effectively in today's workforce. This Digest presents an overview of the concept of critical thinking, methods of teaching critical thinking, and examples of critical thinking programs in community colleges.

What is Critical Thinking?

Cromwell (1992) notes that the definition of critical thinking has gone through a transformation from meaning the ability to distinguish the thought patterns in the work of others to a reflection on one's own beliefs, thoughts, and decisions. Nickerson, Perkins, and Smith (1985) define it as figuring out what to believe, in a variety of contexts, "in a rational way that requires the ability to judge the plausibility of specific assertions, to weigh evidence, to assess the logical soundness of inferences, to construct counter arguments and alternative hypotheses" (pp. 4-5). Paul (1992, pp. 9-10) defines critical thinking as "disciplined, self-directed thinking that exemplifies the perfections of thinking appropriate to a particular mode or domain of thought." Glock (1987, p.9) offers the following broad definition: "Critical thinking skills are (1) those diverse cognitive processes and associated attitudes, (2) critical to intelligent action, (3) in diverse situations and fields, (4) that can be improved by instruction or conscious effort."

Teaching Critical Thinking

Much of community college instruction is delivered through lectures. The instructor stands in front of a classroom and recites facts and information, while students sit passively and soak up (or ignore) what the instructor is presenting. The goal of teaching, in this mode, is to facilitate students' rote memorization of facts from lectures and textbooks. According to Paul (1992, p.4), this type of lower-order learning, "undisciplined, associative, and inert" hinders rather than facilitates the educational process. Therefore, students must be encouraged to go beyond the memorization of a fact, and adjust that fact to a particular domain of thought. For students to gain critical thinking skills, teachers will have to change the way they present materials and change who does the presenting in their classrooms. Rather than having students absorb knowledge, teachers must encourage students to think problems through, analyze, conceptualize, ask questions, be questioned, and reflect on how their beliefs might affect and compare to others. In addition to memorizing facts and figures for a final examination, students must learn, and be challenged, to apply what they have learned to the real world.

Glock (1986) suggests ways that teachers can reinforce verbal critical thinking skills by focusing greater attention on students' "why" questions than their "who", "where," and "how" questions. They should also pay particular attention to their own methods of asking questions, questioning answers, and questioning questions. She suggests the following:

- When a student asks a "why" question, involve the rest of the class in a discussion of the kinds of questions that are most powerful and the sources of their power. Explain the structure of analytical questions and use such questions—especially those generated by students—in quizzes.
- Once students become accustomed to answering analytical questions using material presented in class, ask similar questions that must be answered through their own work experience or inquiries they have conducted out of class.
- Have students analyze the information presented in the textbook to discern which forms of inquiry were used to generate it. Have students read critical analyses of their text, and encourage students to develop their own criticisms based on their personal experiences.
- Compare opposing positions on a topic, and help students identify the sources of the differences of opinion. Avoid emotion-laden topics until students begin to perceive the "universality of reinterpretation and redefinition." In addition, teachers must learn to ask more open-ended questions—why, how, and what if—and coach students through the process of learning how to answer them.

In her second-year oral communications course, Tripp (1990) uses the problem-solving conference during which students (1) select, define, and establish the parameters of a school-related problem; (2) analyze the problem to identify underlying causes, its scope and seriousness, and potential impact; (3) conduct a brainstorming session to generate creative solutions; (4) assess the proposed solutions in terms of viability and potential effectiveness; (5) reach consensus on the solutions; and (6) implement the decision. This process is used most formally in the development of students' group research projects, which result in a technical report based on primary research. Questionnaires and interviews are generally used to gather data on such problems as curriculum requirements, campus parking, or dress codes. All group members should be involved throughout the process—"talking, listening, gathering data,

writing, and editing"—and decisions should be reached democratically. The process, which Tripp also uses in a modified form in her freshman composition course, helps students develop and integrate a variety of analytical skills.

Sheridan (1992) supports the belief that writing is an effective way to facilitate critical thinking, arguing that "the act of generating written discourse is not merely a result of critical thinking but also a stimulus to new thinking and new discoveries." In his freshman composition, Sheridan uses the Freewrite exercise, during which students write without stopping for ten minutes while being forbidden to think about what they are writing, to liberate students from their stultifying fear of grammar and spelling mistakes and open them to the risk taking required for innovative thought. Subsequent writing assignments are based on "real life" topics generated by the students themselves in a series of brainstorming sessions. With instructor guidance the students also generate other thinking-writing strategies to apply to their assignments, including techniques such as:

Focused Freewrite	Categorize Completely
Prioritize Please	Alternate Ways of Looking
Advantages-Disadvantages	Creative Alternative
Compare-Contrast	State Problem Specifically
Mine for Metaphors	Essential to Consider Opposition
Alternate Solution	Consider Position
Sequence Your Points	Stand It on Its Head
Write It in Pieces	Close Strongly
Disobey Directions Creatively	Take the Next Step

The students also generate the criteria to be used in evaluating their written work, in the belief that students will more readily internalize strategies and standards they themselves have suggested.

Critical Thinking Programs at Community Colleges

The critical thinking movement is in evidence in classrooms all over the country. In addition, some colleges have introduced campuswide programs to implement critical thinking across the curriculum. At Miami-Dade Community College, the Learning to Learn Subcommittee was formed to help create a course for faculty in teaching-learning theory, specify student behaviors and teaching methods to promote critical thinking skills, and develop ways to include the learning-to-learn concept across all disciplines (Miami-Dade Community College District, 1989). Similarly, Oakton Community College's (OCC's) critical thinking program began with the faculty (Lee, Bers, and Storinger, 1992). In fact, the college's Critical Literacy Project is the centerpiece of Oakton's faculty development program. One of the central components of the project is a year-long, faculty seminar designed and taught by OCC faculty, to teach volunteer participants ways of incorporating critical literacy skills into their courses. In addition to providing a theoretical context for course revisions, the seminar utilizes a workshop format during which participants rethink and revise at least one of their courses to incorporate critical literacy content and assignments. The Community College of Aurora, Colorado, involves faculty in a year-long Integrated Thinking Skills Project, in which interdisciplinary teams of faculty participate in critical thinking training, curriculum redesign, coaching, evaluation, and follow-up.

At other institutions, critical thinking is implemented through curriculum change. Alverno College, eight abilities (i.e., communication, analysis, problem solving, valuing, social interaction, responsibility toward the global environment, effective citizenship, and aesthetic responsiveness) have been embodied in the curriculum to facilitate the intellectual development of students (Cromwell, 1992).

Ten years ago, LaGuardia Community College began its critical thinking program with its Critical Thought Skills (CTS) course. The course has three basic objectives:

- "Enhance and accelerate the development of students' reading, writing, and speaking skills;
- Develop and refine students' higher order thinking, reasoning, and problem-solving abilities; and
- Encourage students to explore their basic attitudes toward their lives and larger social concerns, fostering qualities such as maturity and responsibility" (Chaffee, 1992, p.27).

Conclusion

The ability to analyze problems and think critically will serve students well in today's complex world. Community colleges can play a vital role in preparing and training students for this world. Taking on this role will require many changes in teaching practices and learning styles, changes that will affect not only teaching methods and course content, but college curricula and institutional mission.

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Educating Part-Time Adult Learners in Transition

By Judi Conrad

> By the year 2000, every adult American. . .will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
> (Goal Five of the National Education Goals)

Who Are the Adult Learners in Transition?

A seminal work by K. Patricia Cross (*Adults as Learners: Increasing Participation and Facilitating Learning, 1991*) remains central to any discussion of adult learners today. Cross presents two models: Characteristics of Adults as Learners (CAL) and Chain-of-Response (COR) which describe the way in which educators have come to view and service the adult learner. Citing demographics, social change, and technology as three factors that will influence the demand for adult education programs, Cross asserts that "It would be difficult to think of some way to live in a society changing as rapidly as ours without constantly learning new things" (Cross, 1981).

The impact of a rapidly changing society is reflected in the growing number of adults engaged in a formal part-time course of study at an institution of higher education. Statistically, adult learners, those 25 years of age or older, constitute over one half of all students enrolled in higher education courses (National Center for Educational Statistics (NCES), 1992). For the most part, these adult learners are in state of transition seeking to improve their situation through education. They encompass a broad spectrum including growing numbers of women, displaced homemakers, career changers, immigrants, second career retirees, single family parents, and individuals seeking professional development.

The commitment to self improvement suggests a whole different set of aspirations and expectations than those found in the younger full-time student. At the same time, the anxieties and pressures of the older part-time student may far exceed those of the traditional student. The nature of both their needs and demands has major implications for institutions of higher education. NCES projects for 1991 (over the 1988 estimates) a total increase of 13.31 percent for fulltime students aged 25 years and over and a 10.31 increase for part-time adult students. This means that 71.77 percent of all students enrolled in all institutions of higher education were estimated to be part-time in 1991. For 1998, NCES projects 71.55 percent part-time adult student enrollment and 71.62 percent for 2003. Such projections suggest important policy, curriculum, financial, and administrative implications for postsecondary education institutions.

What Are the Special Needs of the Part-Time Adult Learner in Transition?

Given the diversity of part-time adult learners, there are many more considerations our institutions need to address. A general principle might be to provide maximum services that are easily accessible. Academic counseling, for example, should be readily available so that the particular goals of the adult learner are established at the beginning of the course of study so that each course taken builds upon those goals. Academic support services are vital to students unsure of their ability to succeed. Among the more interesting approaches to academic support services are programs that provide peer mentoring, mentoring, and encourage active and cooperative learning, although the traditional programs that support specific skill development are also valuable.

There is evidence that the ease with which an adult learner can complete the admissions and registration process is related to successful recruitment and retention (The College Board, 1990). Moreover, the convenience of classroom location and course schedules are important considerations for part-time adult learners, since they inevitably have other obligations (e.g., job or family) and limited time. It is important that institutions of higher education recognize and support cocurricular activities that enhance the social and cultural integration of the part-time adult learner. Research indicates correlation between social and cultural comfort, student retention rates, and academic achievement (See Caracelli 1988 for a model that looks at the relationship between "identity status stability" and student retention among a cohort of 70 adult women).

What Services Are Available to the Adult Learner in Transition?

The list of services profiled in *100 Ways Colleges Serve Adults* (The College Board, 1990) is indicative of the many ways in which colleges serve adult learners. This readable book presents examples of successful college programs in the following service areas: academic counseling; academic support services; admissions; advertising and marketing; cocurricular activities; community relations; convenient location/scheduling; curriculum; publications; recruiting; registration; and services. The extent of this list suggests the bureaucratic maze that must be negotiated if the student is to benefit from all services offered. Delight E. Champagne (*Planning Development Interventions for Adult Students*, 1987) asserts that because the student affairs office cuts across all other campus services, it should assume primary responsibility for coordinating and promoting campus services suitable for the adult student. Champagne presents a student affairs intervention model based on eight functional areas: specialized services; advocacy; referral; networking and mentoring; education (e.g., life skills training); clearinghouse that links students to campus services and resources; program planning (workshops and support groups); and counseling (individual, group, and peer group).

How Should the Curriculum Differ for the Part-Time Adult Student?

A major difference between curriculua for the part-time adult student and the traditional student results from the fact that the former, by and large, are voluntary students with specific learning objectives in mind. If their objectives are to be met, it is important, that those objectives be identified and that each adult student be consulted in the development of their own curricula. Active, problem-solving, goal-oriented, and cooperative learning are among the more successful teaching strategies (Cavaliere and Sgroi, 1992). The adult learner is generally less tolerant of the more passive lecture format and eager to take responsibility for learning. See Baron and Rusnak, 1990 for description of an alternative teacher certification program designed to encourage and nurture math, science, and engineering professionals willing to change careers.

Which Disciplines Are Targeting Adult Learners in Transition?

A search of the ERIC database suggests that teacher education programs have made a concerted effort to target adult learners in transition (Powell, 1992; Faulkner, 1992; Baron, 1990; Hensel, 1991; Ryan and Spangler, 1991; Madfes, 1991; Madfes, 1989; Shotel, 1987); however, there is little evidence that other disciplines are paying particular attention to the special needs of the adult learner. Julie L. Nicklin (*Chronicle of Higher Education*, 1991) reports that the greatest growth in continuing education is in the areas of computer training, human resource management, and quality control.

What Are the Implications for Colleges and Universities?

If the projections for increases in the numbers of transitional adult learners are at all accurate, institutions of higher education should benefit from targeting programs to this population. *Restructuring Teacher Education for Career Switchers* (Ryan and Spangler, 1991) offers a good example of such a targeted program. This is a master's degree program at Otterbein College designed to provide an alternative route to teacher certification for career changers. With the exception of the full-time, 16-week teaching internship, the format at Otterbein is a part-time program specifically designed to accommodate the working adult. It offers a liberal arts theme as the curriculum focus and matches course content with field and clinical experiences.

Virtually all 3,000 postsecondary academic institutions and the more than 8,000 proprietary schools already include some kind of short courses for adults. (Hunt, Ed., 1992). There is a substantial body of research on lifelong and continuing education which encompasses everything from adult learner motivational theory to adult learning environments, including the more narrow field of professional continuing education. There are hundreds of thousands of private sector and not-for-profit institutions and organizations that provide educational opportunities of varying quality and duration for the adul learner. Institutions of higher education are increasingly challenged by this competition and they are well advised to look to the body of research on adult learners and that relating to campus services if they are to remain competitive. But, the dearth of information on discipline-specific adult learner programs suggests that institutions of higher education need to consider discipline specific recruitment programs for adult learners in transition.

Tapping into the research and experience of life-long learning and continuing education seems to be a reasonable approach. Educating "every adult American to possess the knowledge and skills necessary to compete in the global economy and exercise the rights and responsibilities of citizenship" (National Education Goals) is a tall order, requiring major changes in postsecondary education. Specifically, institutions of higher education need to address policy issues associated with changes in the following areas: curricula; faculty development programs; administrative procedures; and counseling and support services that meet the needs of the adult learner in transition.

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Goal 6: Safe, Disciplined, and Drug-Free Schools

By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

Objectives

- Every school will implement a firm and fair policy on use, possession, and distribution of drugs and alcohol.
- Parents, businesses, and community organizations will work together to ensure that schools are a safe haven for all children.
- Every school district will develop a comprehensive K–12 drug and alcohol prevention education program. Drug and alcohol curriculum should be taught as an integral part of health education. In addition, community-based teams should be organized to provide students and teachers with needed support.

School Discipline

By Joan Gaustad

School discipline has two main goals: (1) ensure the safety of staff and students and (2) create an environment conducive to learning. Serious student misconduct involving violent or criminal behavior defeats these goals and often makes headlines in the process. However, the commonest discipline problems involve noncriminal student behavior (Moles, 1989).

These less dramatic problems may not threaten personal safety, but they still negatively affect the learning environment. Disruptions interrupt lessons for all students, and disruptive students lose even more learning time. For example, Gottfredson and others (1989) calculate that in six middle schools in Charleston, South Carolina, students lost 7,932 instructional days—44 years to in-school and out-of-school suspensions in a single academic year.

It is important to keep the ultimate goal in mind while working to improve school discipline. As education researcher Daniel Duke (1989) points out, "the goal of good behavior is necessary, but not sufficient to ensure academic growth." Effective school discipline strategies seek to encourage responsible behavior, provide students with a satisfying school experience, and discourage misconduct.

What School Characteristics are Associated with Discipline Problems?

When Johns Hopkins University researchers Gary D. Gottfredson and Denise C. Gottfredson analyzed data from over 600 of the nation's secondary schools, they found that the following school characteristics were associated with discipline problems: Rules were unclear or perceived as unfairly or inconsistently enforced; students did not believe in the rules; teachers and administrators did not know what the rules were or disagreed on the proper responses to student misconduct; teacher-administration cooperation was poor or the administration inactive; teachers tended to have punitive attitudes; misconduct was ignored; and schools were large or lacked adequate resources for teaching (Gottfredson, 1989).

After reviewing dozens of studies on student behavior, Duke agreed with many of the Gottfredsons' conclusions. Orderly schools, he noted, usually balance clearly established and communicated rules with a climate of concern for students as individuals, and small alternative schools often maintain order successfully with fewer formal rules and a more flexible approach to infractions than large schools typically have.

How Can Schools Decrease Disruptive Behavior?

Working to change the above-mentioned characteristics may decrease disruptive behavior. First, rules and the consequences of breaking them should be clearly specified and communicated to staff, students, and parents by such means as newsletters, student assemblies, and handbooks. Meyers and Pawlas (1989) recommend periodically restating the rules, especially after students return from summer or winter vacation.

Once rules have been communicated, fair and consistent enforcement helps maintain students' respect for the school's discipline system. Consistency will be greater when fewer individuals are responsible for enforcement. Providing a hearing process for students to present their side of the story and establishing an appeal process will also increase students' and parents' perceptions of fairness.

The Gottfredsons suggest creating smaller schools or dividing large schools into several schools-within-schools (Duke,1989). This has been done in several Portland, Oregon, middle schools that have large numbers of at-risk students. For example, as Director of Instruction Leigh Wilcox explained, Lane Middle School has been divided into three minischools, each with a complete age range of students taught by a team of teachers (telephone interview, July 10, 1992).

Discipline policies should distinguish between categories of offenses. Minor infractions may be treated flexibly, depending on the circumstances, while nonnegotiable consequences are set for serious offenses. Actual criminal offenses may be reported to the police (Gaustad, 1991).

How Can Schools Increase Positive Behavior?

Research has shown that social rewards such as smiling, praising, and complimenting are extremely effective in increasing desirable behavior.

Citing studies showing that students who dislike school, do poorly academically, and have limited career objectives are more likely to be disruptive, Gottfredson (1989) recommends that schools work to increase academic success for low-achievers. However, this alone is not enough. A comparison of three alternative programs for at-risk youth revealed that while achievement increased in all three, delinquent behavior decreased only in the program that also increased students' social involvement and attachment to school.

Discipline problems will be reduced if students find school enjoyable and interesting. When teachers at Wilson Elementary School in North Carolina changed their instructional practices to accommodate a variety of learning styles, discipline problems decreased dramatically.

Sometimes problem behavior occurs because students simply don't know how to act appropriately. Black and Downs (1992) urge administrators to regard disciplinary referrals as opportunities to teach students valuable social skills that will promote success in future employment as well as in school. They present detailed procedures for "de-escalating disruptive behavior, obtaining and maintaining instructional control, teaching alternative behaviors, and preparing students for classroom re-entry."

How Important is Administrative Leadership?

The principal plays an important leadership role in establishing school discipline, both by effective administration and by personal example. Principals of well-disciplined students are usually highly visible models. They engage in what Duke

describes as "management by walking around," greeting students and teachers and informally monitoring possible problem areas. Effective principals are liked and respected, rather than feared, and communicate caring for students as well as willingness to impose punishment if necessary (NAESP, 1983).

Duckworth (1984) found that teachers' satisfaction with school discipline policy was related to their relationship with the principal. Good communication and shared values are important elements in this relationship. Ideally, a principal should be able to create consensus among staff on rules and their enforcement. In practice, some principals create consensus by recruiting like-minded staff over the course of years (Duckworth), or by arranging transfers for teachers whose views "don't fit in with goals and plans for their school" (NAESP, 1983).

In a study involving eight Charlotte, South Carolina, middle schools, Gottfredson and others concluded that stable and supportive administrative leadership was the "overriding factor" determining whether a discipline program was effective. Schools that successfully implemented a pilot program experienced distinct improvements in discipline.

Strong district leadership can also be crucial, according to Lieutenant Steve Hollingsworth, chief of public schools police in Portland, Oregon. When violent gang activity began to emerge in Portland schools, the superintendent took strong action from the start by creating and publicly announcing firm anti-gang policies. Knowing they "had the support of the people at the top" helped school staff present a united front to this difficult challenge (Gaustad, 1991).

How Should a Schoolwide Discipline Plan Be Developed and Implemented?

A school discipline plan must conform to state and federal statutes and to district policy. Meyers and Pawlas suggest that principals consult district administrators beforehand and keep them informed as a schoolwide plan is being developed. Frels and others (1990) review relevant Supreme Court decisions and present sample suspension, discipline, and drug and alcohol policies that may serve as guidelines in policy development.

A plan should be designed around the individual school's learning goals and philosophy of education (NAESP, 1983). Grossnickel and Sesko (1990) present sample discipline philosophy, goals, and objectives from which specific regulations can be derived. According to Gottfredson, if a commercially developed program is adopted it should be tailored to local conditions, as obstacles vary greatly among schools. Allowing sufficient time for implementation is also important; new disciplinary practices often fail due to unrealistic time expectations.

A uniform reporting system is an important element of a school discipline plan. Uniform reporting permits assessment of the current extent of criminal and other disciplinary incidents, helps pinpoint problem areas, and enables administrators to evaluate the success of disciplinary actions (Gaustad, 1991).

Written policies should be developed with input from everyone who will be affected by them. Teacher input is especially important because their support is crucial to a plan's success. Meyers and Pawlas note that cafeteria and custodial staff may have excellent common sense suggestions based on their interactions with students. They also suggest consulting parent and community representatives. Student input is also desirable (NAESP, 1983).

Once developed, discipline policies must be communicated to staff, students, parents, and community. But a policy on paper is meaningless in itself. Ongoing administrative support, inservice training in new techniques, continued communication, and periodic evaluation and modification are needed to adapt a school discipline plan to the changing needs of the school community.

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Substance Abuse Policy

By Joan Gaustad

Substance abuse affects American children of all economic backgrounds in every geographic area. Research has linked drug use to a decline in academic performance, to truancy and dropping out, and to crime and misconduct. All too often, illegal substances are used and distributed on school property.

Students whose schools lack clear alcohol and drug policies are more likely to use or experiment with chemical substances. While good policy alone can't reduce substance abuse, it is the indispensable foundation for an effective effort against substance abuse.

Why Is Substance Abuse Policy Important?

Substance abuse policy makes a public statement that educators are aware of and concerned about the problem. Policy can express the intent and beliefs of school and community and their resolve to work toward a solution. It establishes long-range goals and sets an overall tone that will support specific actions.

A district-wide policy helps maintain consistency in prevention and intervention efforts and promotes fair, uniform treatment of students at different schools. It guides the development of site-specific procedures and ensures program continuity if a key building administrator should depart. In addition, recent legislation requires schools to possess comprehensive substance abuse prevention policies and programs in order to be eligible for federal funding.

What Should a Comprehensive Substance Abuse Policy Include?

A policy should begin with a *philosophical statement* articulating the district's position regarding substance use (PrevNet, 1990). According to education consultant Judy Graves, an antidrug stance isn't enough. Policy-makers should also consider: "What is it we believe in as a school community and what do we want to promote?" Drug abuse should be seen in context, as an obstacle that hinders the achievement of positive goals (telephone interview, February 16, 1993).

The *discipline* code should specify what constitutes a drug offense, explicitly defining prohibited substances and behavior. Policy should establish the extent of school jurisdiction. For example, the code can state that prohibitions also apply to school-sponsored events that take place off campus, or that any substance use that would impair student functioning in school is prohibited. Types of violation should be distinguished and consequences of varying severity set depending on the type and frequency of violations. Provision should also be made for enabling suspended or expelled students to continue their studies. The Office of Educational Research and Improvement (1991) supports notifying parents of all drug offenses and stresses the importance of linking punishment to corrective action such as referral for treatment and counseling.

Here discipline blurs into *intervention*. A district should either provide student and employee assistance programs or refer offenders to outside agencies. Nonpunitive help should be made available for students and staff who request it, including nonusers affected by friends' or family members' substance abuse. Aftercare should be provided for those in recovery.

A policy should state desired *prevention* goals and the types of preventive efforts the district will support. A specific prevention curriculum may be authorized. Policy should mandate drug awareness and prevention training for *all* staff, from administrators to cooks (OERI).

Comprehensive regulations and procedures must support policies in all three areas. The roles and responsibilities of school personnel in various situations must be clearly defined. Procedures are needed for reporting incidents and suspected use, for notifying parents, for responding to drug-related emergencies, and for coordinating with community agencies and the police.

How Should a Substance Abuse Policy Be Developed?

Schools alone can't defeat a problem as complex and socially deep-rooted as substance abuse. The whole-hearted support of parents, staff, and community is critical to success. Thus involving all parties in policy development is an "essential investment of time and energy" (Linn-Benton [Oregon] Education Service District (ESD) and ERIC Clearinghouse on Educational Management (ERIC/CEM), 1991). The process should include teachers, administrators, classified staff, parents, and students, as well as representatives of law enforcement and juvenile justice agencies, treatment programs, businesses, and community organizations.

According to Colker and Flatter (undated), an understanding of chemical dependency is a prerequisite to effective policy development. Assessing the extent of substance abuse within the district is another vital preliminary step; to be maximally effective, policy must be tailored to local needs. Effective policymakers also anticipate potential problems that may develop in the future.

Once a general policy outline has been created, previous policies should be examined to see how well they address current needs. Colker and Flatter suggest asking administrators to describe current policies without referring to documents. Poorly remembered points may have been badly written and require revision. Next, resources must be examined to see whether they are sufficient to support the desired policy.

The policy-development process is complex, time-consuming, and sometimes tedious and emotionally draining. Districts

should anticipate the human factors involved and allow from nine months to a year for completion. The Linn-Benton ESD and ERIC/CEM suggest specific procedural steps to streamline the process and ease pressure on participants.

How Should Policy Be Communicated?

Ongoing communication is more effective than sporadic, one-shot policy messages for staff, students, parents, and other citizens. Distribute the policy in writing, discuss it verbally, and review it periodically. Many schools require students and parents to state in writing that they have read and understand the school policy handbook. At Miami's W. R. Thomas High School, staff go over substance abuse and other school policies with each new student admitted in mid-year (Ficklen, 1990). Palatine, Illinois, high school athletes must read and sign a code of conduct promising to remain drug free, and must attend a drug-awareness meeting with their parents at the start of the season (OERI).

Presenting substance abuse policy along with other issues at classroom get-togethers for parents is more effective than relying on special substance abuse events. Policy information can also be shared at parent-teacher conferences.

Administrators should reach out to the community personally and via local media. School staff can speak to civic, service, and religious groups. School board members can transmit information to organizations to which they belong.

Colker and Flatter suggest that administrators regard policy as "a product to be marketed" and urge them to be persistent and creative in their efforts. For example, sponsor school information booths at shopping centers. Ask large employers to distribute information via employee newsletters, and the utility company to enclose information with bills. Ask owners of stores that sell alcohol and tobacco, especially those near schools, to ensure their employees obey laws against selling to minors.

What Legal Issues Should Be Considered?

Schools must balance their obligation to provide a safe academic environment against protecting students' privacy and right to due process. Recognizing that the first takes priority over the second, the U.S. Supreme Court has allowed school officials considerable discretion to act (Lewis and others 1992).

Search and seizure procedures must meet a "reasonableness standard." There must be reasonable suspicion that a student has violated school policy, and the intrusiveness of the search must be reasonable given the student's age and the seriousness of the suspected violation. Some particularly intrusive procedures such as drug-sniffing dogs, strip-searches, and urinalysis have not yet been addressed by the Supreme Court (Lewis and others). Schools should also be aware that they are legally responsible for the cost of drug-testing procedures they require.

To ensure *due process*, students facing expulsion or a suspension of ten days or more must be given a hearing. Hearing procedures may vary according to the severity of the sanction. The Department of Education summarizes hearing guidelines established to date by federal courts.

Clear, well-publicized policies help protect schools against legal challenges. For example, courts have upheld unannounced locker searches when policy specified that lockers are school property, not private, and subject to search. Prohibiting drug "look-alikes" avoids the problem of proving the composition of confiscated substances (Frels and others, 1990). Establishing an unbroken "chain of custody" from the moment of seizure is essential for evidence that may be used in a criminal trial. Behavior or activities that prompted a search should be scrupulously documented. Schools must also comply with laws concerning confidentiality of education records when aiding law-enforcement authorities.

After a district consults an attorney to ensure that its substance abuse policies conform to federal, state, and local laws, it can assure staff they need not fear liability for their antidrug actions. School officials are generally not personally liable for actions taken in good faith, as long as those actions are reasonable, evenhanded, and lawful (U.S. Department of Education, 1989).

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ERIC Clearinghouse on Higher Education

Reconciling Rights and Responsibilities of Colleges and Students: Offensive Speech, Assembly, Drug Testing and Safety

By Annette Gibbs

Reconciling the rights and responsibilities of colleges and universities with those of their students during recent years has been problematic for numerous higher education administrators as they have sought to resolve conflicts between students and institutions. Students have charged that administrative policies and practice have directly conflicted with their constitutional rights, and administrators have responded that their responsibilities as institutional officials require them to consider the priorities of their colleges and universities in designing and implementing policy.

What Rights Do Colleges and Universities Have Relative to Regulating Offensive Speech on Campus?

Because offensive speech is defined by its content, regulations at public colleges and universities to prohibit it raise important questions of boundaries and interpretations of the First Amendment. To date, the courts have ruled against higher education institutions' prohibiting offensive, or hate, speech because the policies failed to distinguish sanctionable speech from protected speech. In reconciling the rights of students and the responsibilities of the public institution, administrators should consider:

- Speech or expression may not be punished on the basis of the subjects the speech addresses: The government must be neutral when it regulates speech.
- Overbroad policies regulating speech have been ruled unconstitutional.
- Unduly vague policies regulating speech have been ruled unconstitutional.
- Restrictions on time, place, and manner of speech or expression appropriate for the educational environment and for maintaining order on the campus are constitutional.
- Policies based on "fighting words," even in part, cannot discriminate on the basis of content or point of view.
- Protections and procedures regarding due process should be in place before and followed during any disciplinary process.

What Issues Surround Students' Rights of Association and Assemble on Campus?

Greek social groups, gay student groups, and student religious groups continue to charge college and university administrators with denying their rights and privileges of recognition that other, less controversial groups receive. Still other students assemble on an ad hoc basis, often issue by issue, and campus demonstrations appear to have moved from protests about apartheid in South Africa to issues like abortion and AIDS. Several policy considerations seem appropriate:

- Once some student groups have been recognized, or registered, by their institution, other groups should not be denied such treatment simply because the college or university does not agree with their views.
- Student groups should be treated the same as other groups have been treated, provided they fulfill the same procedural and substantive requirements established by the institution.
- Colleges and universities are within their rights to emphasize, even through public statements, that their acknowledgment of the existence of student groups does not indicate institutional approval of the groups' or organizations' religious, political, economic, or philosophical positions.
- Student demonstrations on public college campuses, like other associational activities, cannot be prohibited on the basis of content or the message to be communicated.
- Greek groups that are primarily social in nature and also part of a national organization may be treated, as a whole, differently from other student groups in terms of institutional recognition and requirements for affiliation.
- Whatever an institution's relationship with its Greek groups, that relationship should be conveyed to all applicable groups and their respective national organizations before institutional recognition or affiliation.

What is the Status of Mandatory Drug Testing for Athletes?

Courts in several jurisdictions have been unwilling to accept colleges' and universities' stated purposes for drug testing. Likewise, the NCAA has failed to convince most courts that it, on behalf of its member institutions, has a compelling need to test athletes randomly. While some issues surrounding testing remain debatable, the courts appear to be developing consensus about the questions and principles they will address.

- Whether an institution chooses to go along with the NCAA's testing procedures or to conduct its own testing program, it should develop clear and definitive policy objectives for its testing requirements and match those objectives to achieve the desired and stated outcome.

- The accuracy of tests is limited, and procedural safeguards should be incorporated in drug testing programs to allow students who test positive to respond to or rebut the findings. Such students could be allowed access to an additional, independent laboratory analysis.

- The courts' most recent rulings appear to support the position that institutional mandatory drug testing programs violate the principle of protection of privacy guaranteed in most state constitutions.

- Strong consensus is evident among the courts that colleges and universities need to have drug education programs emphasizing prevention and rehabilitation, not only for athletes but for all students.

Finally, because an institution, if it participates in the NCAA's testing program, is the enforcer of any NCAA legislation against students, it could be subject to state laws and regulations relative to such enforcement and thus find itself between its students and the NCAA in legal claims brought by students.

What Responsibilities Do Colleges and Universities have for Students' Safety on Campus?

In situations involving the victimization of students as well as other personal injuries to students on campus, the element of foreseeability has become a criterion in many states for determining colleges' and universities' liability. The extent to which an institution knew, or should have known, that a student was exposed, or could be exposed, to a risk of injury has become a major factor in courts' determining whether the institution owed a duty of care to the student. The courts have ruled further that:

- Institutions generally are on notice of the potential for criminal harm if similar criminal incidents have occurred in the past; harm is thus foreseeable.

- Colleges and universities should show that they exercise reasonable care to keep their campus free from conditions that create or increase the risk of harm.

- If the college or university assumes a landowner/business invitee relationship with its students, it may be held to similar duties of private landlords in the maintenance of physical security on the premises.

- When higher education institutions have shown that their relationships with students are not sufficiently special (landlord/tenant, for example), courts have been hesitant to impose upon them a duty to protect students from harm.

- When the college or university could not foresee harm to a student, courts have been reluctant to impose liability on the institution for the harm.

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