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ABSTRACT

This publication, part of a series initiated in 1986, describes effective educational practices of schools that serve disadvantaged students and adds information on recent research about the characteristics of these schools to support the review. Following an introduction, four types of attributes are examined in four sections. Section 1 considers school structure and discusses the following topics: leadership that articulates goals and builds consensus around them; clear goals that emphasize high expectations and academic achievement; and demonstration of respect for students' cultural and linguistic backgrounds. Section 2, on the organization of effective schools, discusses partnerships with parents, opportunities and resources for professional development, coordination of supplementary programs with other elements of students' school experience, and efficient use of academic learning time. Section 3 examines curriculum, instruction, and assessment. Topics considered include: opportunities for students to use their own experiences as a foundation for learning; teaching that explains assumptions, expectations, and ways of doing things in school; curriculum that includes instruction in comprehension skills; curriculum that integrates basic skills with challenging content; instruction that highlights meaning and understanding; recognition and rewards for academic excellence; and classroom management keyed to learning tasks. Section 4 discusses accountability in effective schools for disadvantaged students, particularly schoolwide accountability for learning supported by regular assessment. Fifty-two notes and 109 references are included. (JB)

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INTRODUCTION

Initiated in 1986, the *Effective Compensatory Education Sourcebook* series marked a turning point in the implementation of Chapter 1. It signaled a new focus on the instructional strategies used in compensatory education projects and their practical, measurable effects on students. The first volume of this series (Griswold, Cotton, & Hansen, 1986) integrated information on the organization and operation of successful programs with promising findings from research on curriculum, instruction, and assessment in effective schools. Subsequent volumes described schools and compensatory education programs that exemplified the principles described in the initial publication. In 1988, the emphasis on instructional strategies in compensatory education was expanded through legislative provisions aimed at raising both the achievement of Chapter 1 students and also the expectations that are set locally for the performance of these students.

With the publication of this volume in the *Sourcebook* series, the U.S. Department of Education takes another step to assist educators, parents, and others in improving the instruction provided to disadvantaged students. Building on the list of attributes of effective schools presented in the 1986 introduction to the *Sourcebook* series, this volume applies recent research to update the earlier guidance on the characteristics of schools that successfully serve disadvantaged students.

For schools that are beginning a process of educational improvement, the revised attributes provide a practical road map. For schools that have institutionalized the policies and practices associated with the original thirteen attributes, the guidance in this volume can help answer the question, "Where do we go from here?"

National Policy Backdrop for the Updated Attributes

In 1988 Congress expressed ambitious new expectations for the performance of Chapter 1 students.[1] No longer would the authors of Chapter 1 be content with the modest achievement gains reported in

national studies of program effects.[2] Taking direction from examples of highly effective local projects such as those presented in the *Sourcebook* series, Congress set new goals for educators. They would now be responsible for assisting Chapter 1 students to: (a) perform successfully in the regular academic program; (b) master the grade-level curriculum appropriate for their age; and (c) improve their knowledge of more advanced skills as well as the basics of reading and mathematics.

To help local educators implement these goals, the Department of Education commissioned research to learn how curriculum and instructional practice affect disadvantaged students in actual classrooms. The first report of that project, *Better Schooling for the Children of Poverty: Alternatives to Conventional Wisdom*, presents syntheses of recent research findings on these issues.[3] The conclusions of that report are reflected here. Findings from other research have also helped frame the updated attributes and the recommendations for implementing them.

This guide can assist local educators to design plans for programs and policies that will achieve major improvements in the academic performance of disadvantaged students. It provides tools for educators, working with parents, to assist educationally deprived children accelerate their learning so that they can perform successfully in the regular academic program. This means more than simply learning enough to be passed on to the next grade or to stay in school. It means that educators and parents will together help disadvantaged children close the learning gap that separates them from other children of the same age.

Rationale for the Focus on the School

The advice and recommendations included in this guide focus on the school, rather than on discrete program elements, as the place where improvements in the education of disadvantaged children should occur. The reason for this focus is clear: **Compensatory education programs make the greatest contribution to student learning when they are fully integrated into the overall school program.** This focus recognizes the fact that students do not see their educational experiences as segmented between supplemental and regular programs. Also, because compensatory instruction (whether supported by Chapter 1 or another funding source) generally occupies only a small part of the school day, changing

these services alone is unlikely to have much effect on the learning rate of disadvantaged students.[4] Compensatory education by itself cannot be expected to achieve the goals set by Congress.

The Attributes of Effective Schools for Disadvantaged Students

As described in this guide and previous editions of the *Sourcebook*, schools that are effective in serving disadvantaged children exhibit certain common characteristics. Recent findings from research and observations from practitioners and policymakers have made it possible to add new dimensions and specificity to the attributes presented in 1986. The updated attributes, divided into four broad categories, are as follows:

Structural Attributes

- Leadership that articulates goals and builds consensus around them
- Clear goals that emphasize high expectations and academic achievement
- Demonstration of respect for students' cultural and linguistic backgrounds

Organizational Attributes

- Partnerships with parents to achieve educational goals
- Opportunities and resources for professional development
- Coordination of supplementary programs with other elements of students' school experience
- Efficient use of academic learning time, including extension of the school day, week, and year as necessary

Attributes Concerned with Curriculum, Instruction, and Assessment

- Opportunities for students to use their own experiences as a foundation for learning
- Teaching that explains assumptions, expectations, and ways of doing things in school
- Curriculum that includes instruction in comprehension skills
- Curriculum that integrates instruction in basic skills with challenging content

- Instruction that highlights meaning and understanding
- Recognition that students sometimes learn best by directing their own learning and by working together
- Assessment that informs students and others of students' progress in skill development and in applying new knowledge
- Recognition and rewards for academic excellence
- Classroom management that is keyed to learning tasks

Attribute Concerned with Accountability

- Schoolwide accountability for learning, supported by regular assessment to provide feedback and guide improvement

Readers familiar with the earlier version of Volume I of the *Sourcebook* will recognize many of the themes from that volume in the updated attributes. They will also see some important differences. In this volume, there is a strong emphasis on consensus building, shared decisionmaking and collegiality among school personnel as prerequisites for planning and implementing improvements in instructional programs. Teachers are seen to have important roles in setting school goals and policies as well as a need for considerable autonomy in making decisions about what is likely to work best in their classrooms. In addition, this volume focuses on student background characteristics as building blocks for teaching and learning. Finally, and perhaps most important, the recommendations for curriculum, instruction, and assessment stress the need to integrate instruction in basic skills, challenging content, and comprehension skills in order to build a foundation for disadvantaged students to become competent, lifelong learners.

Structural Attributes

Each of the attributes described in Section I of this volume represents a central feature of the structure of effective schools for disadvantaged students. **Together, they constitute the foundation for building and sustaining effective education.** They are also among the first issues to be addressed when members of school communities consider improvements. Indeed, if these structural elements are not in place, it is unlikely that any of the programs and practices recommended in subsequent sections of the *Sourcebook* can be fully implemented.

The first two attributes carry forward important themes from the

original list. They are based on two clusters of research findings concerning the structure of successful schools. Good schools benefit from solid leadership that not only identifies goals but works hard to ensure that they are understood and shared by all members of the school community. These leaders recognize and draw upon the talents of teachers and others in a variety of ways. In doing this, they strategically delegate some of their authority, thereby empowering teachers and others to assume more responsibility.

In schools that serve disadvantaged youngsters effectively, leadership functions may be shared by the principal, the coordinator of the Chapter 1 project, and teachers. In fact, coordination in leadership functions can set the stage for other patterns of program integration that are central to the success of these schools.

The goals of effective schools always reflect high expectations for student learning. Teachers and administrators know their students well and take advantage of this knowledge to set goals that are not only ambitious but attainable.

The third attribute, concerned with respect for students' cultural and linguistic backgrounds, draws on a large body of research and experience and adds a new dimension to advice on creating a successful structure for learning. It states that staff of successful schools ground their general concerns about educational effectiveness in respect for the cultural and linguistic heritage that students and their parents bring to the learning experience.

Organizational Attributes

Section II offers recommendations for key organizational components of effective schools: (a) partnerships with parents; (b) professional development for staff; (c) coordination of compensatory programs with other school programs; and (d) planning and action to make efficient use of the time available for learning. These attributes echo themes from the original list. They also add new insights to the earlier advice. For example, school staffs are urged to form strong alliances with parents and to use these partnerships extensively in their school communities. The advice on academic learning time encourages teachers and others to design instructional programs that make maximum use of the hours in the

school day. This recommendation also encourages schools to adopt strategies that extend the time available for instruction outside the normal boundaries of the school schedule.

Attributes Concerned with Curriculum, Instruction, and Assessment

The attributes included in Section III address the heart of the school program—curriculum, instruction, and assessment. Even though the individual attributes are treated separately in this volume, they are inextricably linked in the daily transactions of teaching and learning. Taken together, the attributes diverge considerably from those on the original list that dealt with curriculum, instruction, and assessment. **The updated attributes draw on a growing body of research that lays the basis for a new vision of instructional programs that help disadvantaged youngsters master basic and more complex skills and content.**

Pursuing this vision requires teachers, administrators, and others to reexamine customary ways of defining curriculum content, organizing instruction, and assessing student learning. In some cases, it requires them to change their assumptions about what disadvantaged youngsters can accomplish. Increasingly, the experience of successful teachers and findings from research lead to the conclusion that all students bring significant positive experiences with them to the classroom. These experiences can be a springboard for learning.

The new vision of effective schools also suggests that basic skills can be taught in many contexts and, in particular, as components of more complex learning tasks. In addition, it suggests that active, explicit instruction contributes to increased achievement in all areas but that true mastery also requires students to grapple with problems or tasks on their own or in collaboration with their peers. Although order in schools and classrooms is a key ingredient of effective instruction, the most important measure of behavioral standards, as described in Section III, is whether they create the conditions necessary for teaching and learning to occur. As activities change during the school day, week, and year, the specific standards should also change.

Strategies for assessing student learning must track the development of specific skills. They must also help students, teachers, and

parents determine how well students grasp the meaning of what they are studying and how well they can apply what they know in new and challenging contexts. The discussion of student assessment included in Section III offers approaches to meet these assessment needs.

Attribute Concerned with Accountability

The final section of the *Sourcebook* reviews a single attribute: accountability for learning that is supported by regular schoolwide assessment to provide feedback and guide improvement. **It calls on school staffs to accept their responsibility for student learning and to use comprehensive information to assess progress toward schoolwide goals and make improvements.**

Implications of Updated Attributes

Overall, the updated attributes reflect a perspective and a set of practices that demand a high degree of engagement and collaboration by all members of the school community. For teachers in particular, this vision of effective instructional programs creates a more diverse set of responsibilities and tasks than was the case with the earlier attributes, and it calls upon them to become more active decisionmakers and managers. Teachers and others who study these recommendations should look at them from two vantage points. They should examine the details: What specific practices and strategies are suggested, and how can they be adapted to a local context? They should also take a step back and reflect on the vision: How do the roles described here correspond to the reality of their school and district? How will they need to change their schools and programs to adopt these new roles?

The attributes demand a high degree of engagement and collaboration involving all members of the school community.

SECTION I

The Structure of Effective Schools for Disadvantaged Students

The three attributes of school structure reviewed in this section are, in effect, the preconditions for success in schools that serve disadvantaged youngsters. Solid leadership anchors attention to key issues and marshals resources to support new goals and methods. In schools that serve disadvantaged students well, these goals emphasize high expectations for student achievement and demonstrate respect for students' backgrounds.

Leadership that articulates goals and builds consensus around them

A leader's first job is to work with the members of the school community to define reasonable goals for (a) student learning, (b) the work of teachers, and (c) parent participation. Once the goals have been established and articulated, the leader's task is to remind members of the community of their common aims and to foster collaborative efforts to develop and implement activities to reach the goals. As the discussion in Section IV suggests, the final step in this process is to create and maintain effective procedures for assessing schoolwide progress toward achieving the goals.

Successful leaders develop agreement around school goals and keep them in the forefront of program planning and implementation.

Goal setting is probably best accomplished through a series of meetings and discussions, some highly structured and others not. These sessions can generate a framework for distinguishing between the elements of the school program that need improvement and those that are already effective. Successful leaders—who may be principals, Chapter 1 coordinators,

curriculum supervisors, or teachers in leadership roles—can begin this process by delegating some of their authority, in order to encourage teachers and others to take part in the process. They may, for example, convene school- or program-wide teams who will be responsible for assessing needs and setting the goals to meet those needs. Leaders who share responsibility for leadership become "leaders of leaders."[5]

Since the team members may not have had responsibility for organizational analysis and planning in the past, they may be reluctant to undertake these jobs at first, preferring to wait for more direction. Successful leaders convey to others their confidence in the team to conduct these important activities and to make recommendations to the group. Progress may be slow at first, but patience will usually be rewarded.

Good examples of the implementation of these principles can be found in the schools participating in the School Development Program developed by James Comer, Professor of Child Psychiatry and Director of the School Development Program at Yale University. In each of the program's schools, which mainly serve disadvantaged students, a School Planning and Management Team, consisting of the principal, teachers, parents, instructional aides, and support staff, meets regularly to discuss and decide on steps to improve instruction and school climate and to plan for the future. In one school participating in the program, for example, the school-level team has set the following goals:

- Increase emphasis on mastery of basic and advanced skills through improvement in study habits and use of mathematics and literacy skills in content areas.
- Enhance school climate through: (a) beautifying the physical facility; (b) increasing attendance by recognizing good attendance and contacting parents as needed; (c) improving student citizenship using awards and a citizenship honor roll; and (d) implementing a mentoring program.
- Improve interactions between home and school through: (a) developing and using a school calendar for parents and staff; (b) communicating with parents through monthly newsletters and meetings; and (c) soliciting parent suggestions for workshops.

When a collaborative process is used to develop goals, all sectors of the school community have an opportunity to consider the need for each goal, explore the trade-offs implied in adopting some goals but not others, and examine alternative strategies for implementing each goal. The Chapter 1 personnel within the school take special care to make sure that the needs of disadvantaged children are appropriately considered in the debate. They can also guide the consideration of how to use Chapter 1 resources in addressing these needs. This process, with the participation of Chapter 1 staff and others, can convey underlying principles and the issues surrounding them to the broader school community and also start to build consensus around the goals that are developed.

Successful leaders use a variety of strategies to develop agreement around school goals and to keep them in the forefront of program planning and implementation. Cohen (1983) views the consensus building process as requiring "creation of a moral order, which entails respect for authority, genuine and pervasive caring about individuals, respect for their feelings and attitudes, mutual trust, and the consistent enforcement of norms that define acceptable behavior" (p. 33).

Citing important research on school organization by Little (1981), Cohen suggests that the moral order depends, in part, on establishing two faculty work norms. One is collegiality—"the notion that the work of teachers is shared work, not work to be done exclusively in the isolation of the classroom" (p. 34). As Gideonse (in Elmore, ed., 1990) states, collegiality brings the group's professional expertise to bear on decisions about instructional practices, evaluation, curriculum design, and communication with parents, allowing teachers to communicate what they know about individual students and to share responsibility for defining, implementing, and achieving standards of student performance.[6] The other norm cited by Cohen is continuous improvement, which is the expectation that there will be constant staff attention to improving practice. It is more than coincidence that school staffs that have ambitious expectations for improvement also have high standards for their students.

Maintaining consensus around school goals is an ongoing task requiring considerable time and energy. Hawley, Rosenholtz, Goodstein, and Hasselbring (1984) suggest that successful principals accomplish this by extending teacher participation in the initial goal setting process to encompass what they call "technical decisionmaking." These decisions

involve "selection of instructional material, determining appropriate instructional methods and techniques, establishing general instructional policies" (p. 57.) Citing research by Anderson (1982) and Brookover, Beady, Flood, Schweitzer, and Wisenbaker (1979), Hawley and his colleagues report that teacher involvement in these and other areas of decisionmaking is positively linked to their commitment to achieving schoolwide goals and, consequently, is likely to reflect their overall performance levels. According to Oakes (1989), this pattern of teacher involvement "leads to consensus about school priorities and practices and to consistency among school goals, grade level and classroom objectives, instructional content and activities, and assessment of results" (p. 191), thus bringing internal consistency to many school operations.

The alternative to this type of professional involvement, according to Oakes, is that teachers are "more likely to disconnect what goes on behind individual classroom doors from articulated school goals and policies." The result of this pattern is chaotic programs that do not serve disadvantaged students well.

In a recent review of research on school organization, Rowan (1990) adds a caution to assumptions about the relationship between collegiality and commitment. He concludes that collegiality and the workplace experiences that generate it must be intense, in order to result in commitment to faculty norms and school goals. In the absence of intensity, collegiality may lead only to a congenial atmosphere and nothing more. Principals, Chapter 1 coordinators, and school-site teams should bear this caveat in mind as they think about consensus building and staff participation in school improvement activities.

Recruitment of new teachers and other staff provides special opportunities to explain goals and expectations and build consensus around them. Staff orientation is another occasion for sharing goals and developing commitment to them. Over a longer term, procedures for supervising and assessing teacher performance can be explicitly keyed to school and program goals and standards. Progress reports to parents, community groups, or central administrative units can also be organized around these goals.

Effective leaders do not hesitate to use their authority to protect teachers from interruptions and low-priority tasks—in effect, intervening to ensure that teachers can focus their energies on shared goals.

Indeed, a simple but revealing exercise is to keep detailed records of the number of times in a week that teachers and other staff are required to engage in activities not directly related to achieving the school's main instructional goals. Leaders and planning teams can use this information to rearrange the school day and teachers' operational responsibilities and thus increase concentration on important tasks and minimize distractions.

Once there is consensus and commitment, teachers can, as Brophy (1987) describes, reinforce school-level leadership and goals in their classrooms by demonstrating the personal benefits of knowledge and learning. Teachers set examples for students by showing that they value learning as a rewarding, satisfying activity that enriches their lives. They share their interests in books, articles, television programs, and movies that are relevant to the subjects they teach. They also describe the applications of their respective subjects to everyday living, the local environment, and current events.

Clear goals that emphasize high expectations and academic achievement

After reviewing research on school leadership, Rosenholtz (1985), Cohen (1983), and the staff of the Pennsylvania Department of Education (1989) concluded that the goals set by successful schools *always* emphasize high yet attainable standards for academic achievement. Goal statements of effective schools, however, include more than simple exhortations that students will learn or reach higher levels of mastery. They specify what students will learn and what levels of mastery are expected. In emphasizing high standards for student learning, goal statements may also include standards for parents and teachers as they fulfill their roles in the school's instructional programs.

As discussed in the Introduction, legislative objectives for Chapter 1—that Chapter 1 participants will perform successfully in the regular program and that they will master the grade-level curriculum appropriate for their age—require that the expectations for Chapter 1 participants be the same as those for other students in the school. Depending on the needs of Chapter 1 participants, instructional strategies

and materials used in Chapter 1 may differ from those in the regular curriculum, but strategies and materials for all students will address the same curricular goals.

The most effective educational goals have a concrete value of their own, or they represent an essential step towards higher aspirations.

In the past few years, educators have adopted new assumptions about the intellectual content of instructional goals set for disadvantaged students and the methods used to reach those goals.[8] The focus of this shift is to encourage students' involvement in a curriculum that is rich in content and challenge. This orientation rests on the premise that a content-rich curriculum, which stimulates intellectual curiosity and demonstrates reasons for mastering skills and content, is the best way to promote learning. Using this premise, the educational goals set for all children, including those achieving below grade level, include mastering content knowledge, learning to apply this knowledge in unfamiliar contexts, and developing proficiency in the basics of reading, language arts, and mathematics. (Section III includes a discussion of curriculum that is appropriate for disadvantaged students and that is also grounded in high expectations and articulated around challenging content and skills.)

The most effective educational goals for all students are those that either have a concrete value of their own (e.g., the ability to read with understanding) or that represent an essential step towards some higher aspiration (e.g., graduation from high school). Effective goals also make sense to students, parents, and staff and can serve to motivate members of each group to make the special effort that is necessary for success. As a check on the reasonableness of school goals, principals and teachers should invite parents and students to talk about them periodically. Their comments will reveal whether they share a commitment to the school's goals or whether a renewed effort is needed to build commitment or revise the goals in light of new circumstances.

As Brophy (1987) points out, challenging goals imply certain actions at the classroom level. Students will be most strongly motivated if they are not "continually expected to practice skills already thoroughly mastered, memorize lists for no good reason, copy definitions of terms that are never used in readings or assignments, or read material

that is not meaningful to them" (p. 42).[9]

The act of forming and setting a goal assumes that an individual or organization will reach for an ideal that, while attainable, may initially be very hard to grasp. To attain it requires special efforts all around. As seen in the discussion of the first attribute, effective leaders keep school and program goals at the forefront of all school activities. Effective teachers, in turn, exert leadership by working to frame specific instructional objectives that amplify the schoolwide goals and, at the same time, are appropriate to specific content areas and student learning needs. Principals and teachers ensure that parents are fully apprised of the goals and objectives and, as necessary, help parents understand how they can assist teachers and students to achieve them. Students understand the goals and objectives and accept them as guides to their school experiences. In successful schools, students are also confident that these experiences provide a variety of opportunities for them to attain meaningful success.

Clear goals serve two more general organizational purposes. First, they provide standards and directions to orient teachers and others in their work. As described by Oakes (1989), clear goals direct "teachers' time toward involvement in schoolwide decisions [and] development and adaptation of classroom practice" (p. 191).[10] Seen this way, clear goals are a fundamental prerequisite of teacher autonomy and of teachers' sense of efficacy. Lack of clarity makes it difficult for teachers to be confident about their decisions on instructional objectives and strategies. Soon, they become reluctant to try new ideas or take even the smallest risk. They may see themselves as dependent on the principal for direction in the most routine tasks.

Clear goals also guide decisions about resource allocation. For example, if there is a schoolwide goal to increase student mastery of challenging content in certain curricular areas, decisions about purchasing new materials will be based, in large part, on how various options are likely to contribute to achieving the goal. If the school staff is divided over whether to emphasize challenging content or basic skills or if there is no agreement about how the two are related, determining which materials to purchase is difficult, if not impossible.

As recommended in the discussion of the first attribute in this section, leaders and other members of school communities who are

interested in setting new goals that emphasize high expectations (and in establishing the conditions that support those ends) can begin by creating a forum for the school community to come together to consider their aims. They can use this forum as a means to reach agreement on a shared vision of their school.

Demonstration of respect for students' cultural and linguistic backgrounds

The discussion of leadership said that the leader's role in goal setting and consensus building includes creating a learning environment based on respect, caring, and trust. School staffs, especially those working with disadvantaged youngsters, understand the importance of knowing about their students' cultural and linguistic backgrounds. This knowledge is not an abstraction. It is translated into respect for the qualities that each child brings, including the child's personal talents and interests and the richness of the child's heritage. Respect based on these elements is, in turn, consistently communicated to students and is directly incorporated into instruction.

When a school staff values the youngster as an individual, the student learns that educational success is an attainable goal.

This view contrasts with that of some members of the education establishment, who have based assumptions about educating disadvantaged students on the perceived "deficits" in these children's lives. Although serious needs exist in poor communities, first-hand experience in the classroom has discredited the deficit hypothesis.[11] Instead of seeing poverty-related impediments as unalterable causes of failure, thoughtful educators view them as obstacles to be surmounted and conditions that can be overcome. As noted earlier, educators now understand more about the strengths and talents that all students bring to school, including children from low-income homes. Successful teachers help students build on their assets. When a school staff demonstrates that it values the youngster as an individual, the student learns that educational success is an attainable goal for a person with his or her unique combination of abilities, interests, and needs.

A good example of this is reported by Swap (1990):[12]

> Concerned about teachers' inability to "connect" with their students, who lived in an isolated rural community, a teacher trainer conducted ethnographic research in the rural area and the larger community where the teachers lived. She then organized a staff development program in which teachers reflected on the findings of her research and supplemented these observations with their own classroom experiences. The teachers analyzed the differences between the rural culture and their own. They also identified ways that the local culture affected their students' performance in school. Most importantly, they explored ways of integrating the values and priorities of the rural area with objectives of high achievement. These activities enabled the teachers to reach out to students and parents more effectively than they had before and to improve linkages for students between their lives at home and what they learned in school.

Because the family is a central force in shaping the values and priorities of any child, parents' beliefs about schooling and the academic potential of their own children are critical factors in determining a child's success (Comer, 1988b). If parents' own experience has made them distrust schools and teachers, that view is likely to be communicated to their children. Negative signals from parents or a lack of parental interest in school can make a child, especially a youngster from a racial or ethnic minority group,[13] believe that the school is an unfriendly or even hostile place. Effective schools work with parents to replace these signals with new ones—that each student can excel, that educational achievement can lead to later success, and that the adults in the student's life are unified in their support for the student's efforts to succeed.

To send these messages, effective schools find opportunities to demonstrate to parents and their children that the school, family, and community are a team and that all of the teams members are respected, in part, for their unique contributions to team efforts.

For example:

- An inner city school established a Parent Center in an unused classroom, furnishing it with a couch, table, desk, folding chairs, telephone, coffeemaker, and children's play area. Parents now use the Center to

meet with teachers and others and to plan activities for students. Among the Center's other achievements, its presence demonstrates to students that their families have a contribution to make to the school and that the school values and uses the talents and strengths that these families bring. [14]

- Some schools have full- or part-time staff to serve as "multicultural liaisons" to segments of the community whose children are represented in the school. These staff work with teachers, administrators, and parents to integrate cultural experiences into the school. Often, these experiences use art, drama, and music to build cross-cultural understanding.

- Many schools sponsor fairs, dinners, and Appreciation Days to acknowledge the contributions of students' ethnic and linguistic heritage. These activities achieve the greatest impact when they are part of a systematic inquiry into the history and culture of the group that is being honored.

A school that wants to send a message of respect to students and families can take steps to incorporate learning about students' cultural backgrounds into the curricular and social activities of the school. As part of this effort, it can bring parents into the school as volunteers in the classroom, library, and office to help with special school or classroom events and with regular day-to-day activities.

SECTION II

The Organization of Effective Schools for Disadvantaged Students

Once the structural elements are in place, school staff can turn their attention to the organizational elements that support effective teaching and increased learning for disadvantaged students. These include: (a) partnerships with parents; (b) resources for professional development of school staff; (c) coordination of supplementary programs with other elements of students' school experience; and (d) efficient use of academic learning time.

School staffs and others who study the suggestions presented here should recognize that developing these organizational attributes depends on the structural features discussed in Section I. For example, the goals for school-parent partnerships can only be set after overarching schoolwide goals are established. Similarly, schoolwide goals must guide the agenda for staff development by continually asking, "What professional skills need to be sharpened to make sure that schoolwide goals are met?" While school leaders will not be responsible for all the details of these activities, they nevertheless cannot be carried out without effective leadership. Readers will no doubt see other links between these two sets of attributes.

Partnerships with parents to achieve educational goals

Studies by researchers such as Epstein and Becker (1982) have confirmed the importance that parents in low-income communities attach to education. Other research by Batts (1983), Chrispeels (1987), Lightfoot (1975), and Seginor (1983) has documented the powerlessness that some of these parents also feel in relation to their children's schooling.[15] The benefits of overcoming these perceptions are confirmed in research that

documents the central role of parental support and involvement in improving student achievement.[16]

The Chapter 1 emphasis on parents can serve as a model for school-based activities that enlist parents to reinforce and supplement instruction in the home as well as in the school.

The task for school staffs is to develop strategies for drawing parents into activities that support and enhance their children's instructional experiences. After reviewing research, relevant theory, and descriptions of successful programs, Zeldin and Bogart (1989) identified nine characteristics of effective partnerships between schools and at-risk families. These partnerships involve:

- District and administrator commitment to redirect resources and modify job responsibilities as needed
- Staff training to work with diverse populations
- Administrative and supervisory support for teachers in efforts to form home-school partnerships
- Planning that recognizes and considers non-school concerns in the lives of disadvantaged parents and students
- Program components that build on the strengths of at-risk families, recognize the barriers facing them, and provide options for different types of involvement
- Assessment of the needs and expectations of families, in order to individualize program activities and promote participation
- Use of the home as a learning environment
- Program activities that strengthen parents and promote successful experiences
- Active support of parents through direct contact with program staff and parent meetings

Profiles of successful schools included in previous volumes of the *Sourcebook* and elsewhere describe how teachers, principals, and other members of the school staff reach out to parents of disadvantaged students, communicate with them about educational goals and about the progress of their children, and involve them in supportive activities in the school, classroom, and home.[17]

For example:

- In response to a needs assessment in one school, parents said that their lack of English proficiency was an obstacle to their participation in school activities. To address this need, the school initiated English as a Second Language classes as a regular activity in its Parent Center, as described by Heleen (1990).
- After parents said that they only heard from teachers when there was a problem, an elementary school began to mail descriptive notes to parents whenever their child experienced a special success or achieved a noteworthy goal. The school also invited parents to participate in awards and recognition activities for their children.
- Another school holds a Parents Morning each week. At these informal meetings, teachers and other staff discuss the school's educational goals and activities with parents. Parents offer suggestions in areas such as motivating their children to learn and making lessons applicable to their children's daily lives. They also learn how they can help their children by, for example, monitoring their homework, sharing reading times, and controlling TV watching.
- Many schools help parents work with their children through the establishment of libraries that lend computers, software (with necessary training), and relevant books. Parent users of the materials help evaluate them and recommend additions to the library. Often these activities center around a supplementary home/school curriculum that involves parents as teachers.

Working more closely with parents to improve education requires that principals and teachers expand their methods for parent outreach by, for example, using other institutions and agencies in the community to reach nonparticipating parents. Once the opening is made to parents, principals and teachers help ensure that parents become involved by offering participation opportunities that have been developed with the help of other parents and by demonstrating their appreciation for the contributions that parents make to the school and their children's education.

In many communities, the history of parent involvement in Chapter 1 programs has expanded opportunities for participation by all parents. The current Chapter 1 emphasis on meaningful roles for parents can serve as a model for school-based activities that enlist parents to

reinforce and supplement instruction in the home as well as in the school.

Opportunities and resources for professional development

Barth (1990) describes a good school as "a place in which everyone is teaching and everyone is learning—simultaneously, under the same roof" (p. 513). This school is organized to make it possible for students, teachers, administrators, and others to both teach and learn. He writes that "a major responsibility of the adults in a community of learners is to engage actively in their own learning, to make their learning visible to others in the community, to enjoy and celebrate their learning, and to sustain it over time."

Professional development in a successful school is achieved through continuous training, collaborative planning, teamwork, and shared decisionmaking.

According to an analysis by Oakes (1989), professional development in a successful school is achieved through continuous training and also through collaborative planning, teamwork, and shared decisionmaking.[18] These activities not only promote teacher effectiveness in the classroom but also result in lower levels of teacher absenteeism and turnover.

Two recent studies affirm the importance of focused activities to develop the professional skills of school staff. In a 1987 review of case studies describing schools that increased the achievement of disadvantaged students over several years, Stedman found that these schools made extensive use of inservice training.[19] They provided "practical, on-the-job training that was tailored to specific needs of staff members and students" and made training "an integral part of a collaborative educational environment" (p. 220). He contrasted this type of inservice training to "after-school workshops that focus on abstract topics that the teachers perceive to be marginally relevant."

Stedman (1987) identified examples of professional development activities that are particularly effective in schools serving disadvantaged students. These schools did the following:

- Gave demonstration lessons to inexperienced teachers
- Provided extra preparation periods to novices, during which they sometimes observed experienced teachers
- Videotaped teachers at work, in order to improve instruction and evaluation
- Helped teachers select materials and teaching techniques

In a study to discover how exemplary schools improve the educational outcomes of disadvantaged students, the Council of Chief State School Officers (1990) found that almost every successful school had established an inservice training program as part of efforts to improve services to students. Schools with the highest student performance had made particularly significant commitments to inservice training.

After looking at a number of successful programs, Hawley, Rosenholtz, Goodstein, and Hasselbring (1984) identified essential features of effective inservice training. These features are a useful checklist for a school that is upgrading its own training activities as a central step in professional development:

- Individual learners or schoolwide teams generate the professional development agenda and lists of problems to be solved through training.
- Training is practical yet sufficiently grounded in theory to permit teachers to adapt what they learn to their own experiences.
- Training is a continuous process that is integrated into the school's regular "work-day" activities.
- School-level administrators support and are involved in training.
- Informal discussions follow formal training to explore its usefulness and applications.
- Participants receive supporting materials and practical assistance in applying the training.
- Training is evaluated.

In schools providing Chapter 1 services, individual training is particularly important because of the special challenges faced in improving the educational performance of students whose educational successes have been limited. In particular, these teachers may benefit from training in methods to integrate Chapter 1 services into the school's larger instructional program and in involving parents in educational activities. Paraprofessional staff in Chapter 1 may benefit from the same types of training and also from training directed to their specific day-to-day responsibilities.

The importance of staff development is highlighted in schools that are shifting towards the more challenging curricula described in this guide. As described by Rowan (1990), these curricula involve "a view of instruction not as a set of routine behaviors that can be scripted and implemented uniformly in classrooms, but rather a view of teaching as a nonroutine technology that relies on teacher judgment and expertise for its success."

Coordination of supplementary programs with other elements of students' school experience

The primary rationale for providing supplementary instruction to educationally deprived students is that the additional learning opportunities can accelerate students' progress in the regular classroom. When regular and compensatory-education teachers coordinate lessons, compensatory instruction is based on the skills that students need to succeed in their regular classes. In a school where compensatory education is fully coordinated with the regular curriculum and where teachers keep each other informed about the progress of individual students, disadvantaged students can learn more, learn faster, and more effectively apply what they have learned.

The importance of coordinating supplementary instruction is highlighted in a study by Epstein and Salinas (1990). The study examined 80 educational programs with promising approaches to serving disadvantaged students in middle schools. The researchers found that a key feature among these programs was an emphasis on coordinating regular and supplementary classes.[20] Promising programs created

frequent planning periods when regular teachers could work with special or resource teachers. Epstein and Salinas reported that the most efficient coordination was achieved when regular and remedial teachers worked together in the same classroom. In these situations, students receiving supplementary services did not lose "regular" instructional time or exposure to "high content" curricula.

Coordination of compensatory education with regular instruction permits compensatory services to focus on the skills students need to succeed in the regular classroom.

Other researchers have focused on the pullout model of supplementary instruction as a particular impediment to coordination. Stein, Leinhardt, and Bickel (in Slavin, Karweit, & Madden, eds., 1989) describe the problems that arise when students are pulled out of their regular classroom to receive supplementary services:

- Instruction for an individual child is fragmented, with content either duplicated or not covered at all.
- Teachers find it hard to manage instructional time because students are frequently entering and leaving the classroom.
- Responsibility for the individual student is lost among the different adults who work with the student.
- When responsibility for the pullout services is lodged with a district-level supervisor, the building principal lacks "ownership" over the special services and hence over the personnel and students involved in the services.

Research conducted in the early 1980s indicated that support programs for at-risk children generally tended to replace instruction in the core curriculum.[21] Because of the emphasis in recent years on coordinating regular and compensatory instruction, this problem may have diminished slightly.[22] Nevertheless, the underlying conditions creating a disjointed school schedule are hard to remove. School staffs concerned about improved coordination should examine their programs and practices to see if any of the following impediments exist:

- A lack of curricular congruence between core and supplementary programs

- Schoolwide schedules in which non-academic activities unduly limit the time available for the academic curriculum
- Severe restrictions on the scheduling of compensatory education due to the limited availability of key staff (such as reading specialists) and the time demands of other special programs (such as services to improve English language proficiency or overcome handicapping conditions)

Any of these circumstances can lead to the use of supplementary instruction as an unintended replacement for core instruction in primary subject areas.

Schools that coordinate instruction effectively use a variety of arrangements to achieve this objective. The following example demonstrates an approach taken by one middle school:

> The school staff was dissatisfied with the pullout arrangements for its Chapter 1 Communications Arts classes because the Chapter 1 activities were isolated from the regular curriculum. In addition, Chapter 1 students resented the fact that they had to miss electives (chorus, band, art) in order to participate in compensatory education. To remedy these problems, the district Chapter 1 coordinator and school personnel redesigned the Chapter 1 project, so that each Chapter 1 teacher is a member of a three-person team that also includes a regular English teacher and a social studies teacher. The team teaches two daily two-period blocks (one block in the morning and one in the afternoon) during which it is responsible for language arts and social studies. The Chapter 1 teacher works intensively with Chapter 1 students in the team's classroom during each of the blocks. Because the three teachers have the same planning period each day, they collaborate on both regular and compensatory instruction. As a result, Chapter 1 instruction is directly linked to the regular curriculum. In addition, the language arts and social studies teachers have learned from the Chapter 1 teacher how to integrate teaching about study skills and analytic thinking into each day's instruction.

In addition to outlining a strategy for integrating Chapter 1 instruction with the regular program, this example is important for another reason. Although coordination was a building-level problem, the

district Chapter 1 coordinator participated in finding a solution that resolved the immediate concern and complied with the provisions of Chapter 1. Had the school staff not become aware of the flexibility available under Chapter 1, they could not have resolved their coordination problem as effectively as they did.

Other districts have successfully used Chapter 1 schoolwide projects to maximize the integration of Chapter 1 services with the regular curriculum. Because of the high level of integration they permit, schoolwide projects also minimize the stigma that older students feel when they are singled out for compensatory or "remedial" services.

The following checklist, developed by the Pennsylvania Department of Education (1989), identifies the distinguishing features of an integrated instructional program:

- Cooperatively developed curricular plans and materials linking regular and supplementary components
- Frequent communication among regular and support teachers, including cooperative planning that involves discussion of specific teaching practices and regular conferences among teachers working with specific children
- Teacher observation of at-risk children in classes with other teachers
- An emphasis on coordination as part of the supervisory process
- A focus on coordination in staff development activities
- Collaborative records on specific students, which highlight the instruction provided and the outcomes observed[23]

Efficient use of academic learning time, including extension of the school day, week, and year as necessary

One of the most consistent findings in education research is the positive relationship between instructional time and student achievement. Studies reporting on this relationship have measured instructional time in a variety of ways, ranging from time that is allocated to a

content area to time in which the student is engaged in learning academic material of an appropriate level of difficulty.[24] In their examination of instructional time as a factor in Chapter 1 programs, Moore and Funkhouser (1990) observed two important dimensions of the relationship between instructional time and student achievement. First, they noted that, compared with other students, low achieving students may require extra instructional time to master subject matter or acquire learning strategies. Therefore, increases in instructional time may be essential for making substantial improvements in the achievement of Chapter 1 students. Second, even though the availability of sufficient instructional time is an important precondition to achievement gains, improvements are possible only when teachers use increased time for effective instruction in curricular areas tailored to student needs. Thus, decisions about allocating instructional time should be guided by a consideration of strategies for using time most efficiently.

Major achievement gains by Chapter 1 students may not be possible without increases in instructional time.

These strategies, in turn, should be weighed against judgments about which instructional approaches are most effective for reaching particular educational goals. They should also be weighed against the likelihood that a particular strategy will yield a reasonable degree of student success. As seen later in the discussions of attributes that focus on curriculum and instruction, goals of mastering more challenging content and developing higher order thinking skills will require more time than those limited to mastery of basic skills.

In addition, not only is achievement positively related to the amount of learning time, but schools with more annual hours of instruction tend to attain higher achievement levels than do schools with fewer hours.[25] Thus, an important step in increasing instructional time for disadvantaged students is to extend their schooling beyond the boundaries of the regular schedule.

As desirable as increased instructional time may be, however, Chapter 1 typically supports only about half an hour of daily instruction for program participants, according to Birman (1988). Further, schools

and Chapter 1 projects tend not to pursue opportunities to extend the school day, week, or year.[26] The limitations inherent in these conditions are complicated by the fact that, while receiving Chapter 1 instruction, students tend to miss instruction either in the regular subjects corresponding to the areas in which Chapter 1 services are provided or other areas (Birman, 1988).

Fortunately, exceptions to these patterns exist. The following examples, reported by Moore and Funkhouser (1990), describe ways that schools with Chapter 1 projects extend instructional time for disadvantaged students beyond the regular schedule:

Extended-day kindergarten

A Chapter 1 program for kindergarten pupils in one community adds over three hours to the normal kindergarten day. Chapter 1 pupils remain in school until 2:30, while other children leave at 11:00. Staff use the extra time to develop skills needed to enter first grade, including language skills and social and motor skills.

Home-based instruction

Home instructors, including certified teachers, visit Chapter 1 children and their parents in their homes for 40 minutes per family each week. During these visits, instructors introduce reading-readiness lessons that parents can teach their children. Instructors also help parents develop the educational and social skills of their children, both Chapter 1 participants and siblings.

Saturday instruction

For 10 weeks in the middle of each school year, third- and fifth-graders in a Chapter 1 project attend three-hour Saturday sessions focused on reading and writing skills that are covered on the state's minimum skills test. The Saturday classes provide individual attention and emphasize themes drawn from children's literature. In addition, the project also provides formal instruction to parents and encourages the use of a parent/child reading calendar at home.

Instruction before school

An elementary school in one community offers Chapter 1 services as a part of schoolwide activities preceding the regular school day. Chapter 1 provides 30 minutes of instruction using children's literature and hands-on activities, including puppet shows and plays based on books, to improve children's language skills.

Instruction after school

Chapter 1 schools in a large district offer services to Chapter 1 students after school each day for about 30 weeks a year. Designed as enrichment classes, the sessions employ centers for reading, media, and computers in activities designed to foster reading enjoyment.

Summer school

Working with the teacher training program in a nearby university, a Chapter 1 project provides small-group instruction to eligible pupils in grades 2 through 4 for eight weeks in the summer. Teaching trainees, who are pursuing Masters degrees in reading, conduct a thorough diagnostic assessment of each child's reading abilities and then provide intensive reading instruction. Project services are provided in 75-minute sessions, three times a week.

Extended school year

Five Chapter 1 elementary schools in a school district hold classes for three to four weeks after the official close of school in the spring. During this period, Chapter 1 students receive reading, language arts, and mathematics instruction for three to four hours a day. Each school designs its own program to reflect a combination of enrichment and basic skills activities.

Not all of these strategies for extending instructional time have been evaluated. However, those that have been studied demonstrate at least a modest degree of success in increasing student learning. In addition, teachers and others who are familiar with the projects report that participating students display improvements in their attitudes toward school and learning.

Schools and districts considering options for extending instructional time for disadvantaged students should consider the following suggestions, adapted from Moore and Funkhouser (1990):

Plan for the effective use of added time

This may entail introducing more challenging curricular materials and new instructional methods that aim to stimulate students' curiosity and engage them in learning tasks. Instruction that moves too slowly leads to boredom—even for teachers. Instruction that proceeds too quickly results in students getting lost or falling behind because they become discouraged. Either situation

can be eliminated by careful planning and thoughtful observation of students' learning patterns.

Anticipate the need to encourage attendance

Students who are absent from school will not benefit from increased learning time. Therefore, plans for adding time to the regular schedule should include strategies for ensuring that students are in school. Examples of successful strategies include scheduling instruction at convenient times, establishing high expectations for attendance accompanied by awards for students who meet those expectations, and frequent communication with parents about the new schedules. Ultimately, the most compelling lure for increased attendance is engaging lessons.

Build in decisionmaking roles for instructional staff

Teachers and other staff are affected by the addition of instructional time. To build commitment and support for these changes, it is important to include staff in decisions that will determine their professional schedules.

Be prepared for obstacles

Existing arrangements for staffing, facilities use, and scheduling can create obstacles to extending instructional time. For example, district transportation timetables and assignments for crossing guards may make it difficult to keep youngsters in school even for a few additional minutes a day. Similarly, other regularly scheduled activities may compete for space with the newly scheduled instruction, and other commitments may make it difficult for teachers to be available at times other than those in the original schedule. In most cases, these problems can be solved through discussion and negotiation. Evaluations of student progress can also indicate program components or features that encourage rapid progress. In every case, considerable flexibility is required on all sides. Once again, the key is careful planning.

Evaluate student progress and the effectiveness of program components

Assessment of student progress and the effectiveness of all components of compensatory programs is important. It is, however,

essential in components that add time to the regular schedule. Do these components represent efficient utilization of limited resources? Could the resources be more productively invested in other ways?

SECTION III

Curriculum, Instruction, and Assessment in Effective Schools for Disadvantaged Students

The vision of curriculum, instruction, and student assessment included in this section diverges sharply from the view that has guided traditional practice. Central to this vision is the introduction of advanced skills and content early in the educational experience of disadvantaged students. This approach views basic skills as building blocks for mastering more difficult content. It also assumes that basic skills are most effectively learned through application in realistic situations and use in mastering more complex materials and concepts. The second important theme is that disadvantaged youngsters can be helped to learn challenging material through instruction that: (a) explains assumptions, expectations, and ways of doing things in school; and (b) fosters the development of comprehension skills. The third theme is that instructional programs can increase chances for success by providing opportunities for students to: (a) use their own experiences in learning; and (b) assume responsibility for their learning in certain circumstances. The final theme is that teachers can solidify the new vision of teaching and learning through attention to classroom routines involving student grouping, assessment, motivation, and management.

Opportunities for students to use their own experiences as a foundation for learning

In a school that serves disadvantaged youngsters effectively, respect for students' cultural and linguistic heritage leads teachers to transform classrooms into friendly meeting grounds for the familiar and the unfamiliar. Students learn about things that are new and perhaps strange to them through analogies to the world they know. Because they learn skills, including reading and mathematics, in the context of what is

Successful learners use prior knowledge and organizing frameworks as the basis for acquiring and assimilating new knowledge.

already familiar, these skills are grasped more easily and are more likely to be remembered.

Research by Anderson, Spiro, and Anderson (1978) and others has shown that successful learners use prior knowledge and organizing frameworks as the basis for acquiring and assimilating new knowledge.[27] For disadvantaged children, this strategy has special meaning. Their out-of-school experiences may be rich with opportunities for personal responsibility and encounters with many types of people. Successful teachers find ways to take advantage of these experiences as the basis for effective learning frameworks.

Examples of such activities include the following:

- Students conduct a survey of literacy in their community to record where literacy is found, who uses it, and for what. Then they analyze this information, in order to learn the importance of different forms of literacy and the variety of its practical uses.[28]
- Students learn how history is relevant to today by learning from older family members about the actions and decisions of their grandparents and more distant ancestors. They use this information to analyze how the past has affected their own lives—through a decision to move from one part of the country to another or to learn a particular trade. They also imagine how their own future decisions and actions could affect their descendants.
- Students learn how geography shapes lives and cultures by examining the effects of natural and constructed barriers and gateways in their own neighborhoods. Then, they study maps of more distant places to find other barriers and gateways and consider how they have affected the past and the present. Using this information, students develop alternative interpretations of the effects of these geographical features and determine which explanation is the most persuasive and complete.

Teachers can use students' background knowledge in planned activities, such as those described above, or spontaneously as students talk informally about themselves in normal classroom interaction.[29] School staff are best prepared to take advantage of these opportunities if they

understand the backgrounds and heritage of their students. The professional development activities discussed in Sections I and III can be effective mechanisms for developing this awareness.

Teachers can also create opportunities for students to acquire experiences that they can use to learn. This can include the use of manipulative materials in mathematics lessons. It can also include composition lessons framed around observations required in a science experiment or around problems and issues of direct concern to students (e.g., conditions in their school or neighborhood).

Teaching that explains assumptions, expectations, and ways of doing things in school

Most children in this country come to school having learned certain skills that are relevant to success in the give and take of daily life in a typical American school. These include both cognitive skills (e.g., familiarity with numbers, letters, colors, and shapes) and behavioral capacities (e.g., taking turns, speaking quietly, compromising to resolve differences). As discussed by Comer (1988a), other students—often children from poor families and troubled neighborhoods—start school with the double disadvantage of: (a) a lack of familiarity with the skills valued in school; and (b) a different set of skills and habits developed in environments where methods of communicating and interacting differ from those used in school.[30]

Teachers in effective schools explicitly teach the behaviors and skills that will allow disadvantaged children to function successfully in the classroom and school.

To help students succeed, teachers in effective schools explicitly teach the behaviors and skills that will allow disadvantaged children to function successfully in the classroom and school.[31] In the classroom (as described by Brophy in Knapp & Shields, eds., 1990), this means that the teacher explains and demonstrates methods of interacting and communicating with adults and other children. These explanations focus on helping students understand why certain behaviors are

successful in school. Students then practice new behaviors in a variety of settings that progress from more to less controlled. Teachers and other students provide them with encouragement, positive reinforcement, and constructive feedback on their mastery of these new skills and behaviors.[32] Because these lessons are virtually a precondition for other learning, they have a formal place in the curriculum and are reviewed and extended in each grade.

An instructional program that teaches the social and behavioral skills needed in school can incorporate both teacher modeling and student role-playing. A school that makes extensive use of role playing did the following:

> A committee of teachers listed the skills appropriate in the school. Skills on the list included waiting your turn in the cafeteria line, settling disputes verbally, raising your hand to speak in a class discussion, compromising in group decisions, and offering and accepting assistance from other students. For each skill, the teacher committee outlined a series of role-playing activities that progressed from simple to complex, from highly "scripted" to open-ended. Students took turns acting different parts in the role-plays and then developed their own fictional situations to simulate. Discussions following these exercises encouraged students to verbalize the thinking of the characters they played, thus allowing the teacher to modify and extend earlier explanations for various forms of behavior.

Chapter 1 personnel need to participate actively in establishing and teaching these types of social and behavioral standards within their schools. Not only are they likely to make valuable contributions to these activities, but their involvement can help make certain that the same standards are used in Chapter 1 activities as in the other components of the school's program.

Curriculum that includes instruction in comprehension skills

Teachers who are successful with disadvantaged students recognize that these students may need help in developing the cognitive skills

used in learning challenging content. So important are these skills that some educators and researchers recommend that students receive instruction that is specifically focused on them.[33] They suggest that this instruction be incorporated as part of the formal curriculum in schools serving disadvantaged youngsters.

Successful teachers of disadvantaged students explain and demonstrate higher-order cognitive processes.

Comprehension skills and some of the teaching and learning tasks associated with them include the following:

Determining importance

The teacher helps students learn how to identify the important parts of a text or problem by verbally sharing his or her own thinking processes, including questions framed to reach conclusions about importance.

Synthesizing information

Students share what they learn from a text or exercise by summarizing, asking questions, discussing sections that are not clear, and predicting or estimating the final outcome.

Drawing inferences

Teachers help students learn to use clues, in addition to background knowledge, in order to answer questions about a test or problem.

Asking questions

Students learn to use and sequence their questions, in order to analyze a text or problem.

Monitoring and remedying comprehension

Students learn to ask themselves what they are learning and to repeat their work or try a new strategy if they are not making progress in a task.[34]

For disadvantaged students, comprehension skills are the keys that open the door to success in school, and, as a previous discussion indicated, disadvantaged students may not have had the kinds of

experiences that result in the acquisition of these skills. Successful teachers recognize this and design instruction to develop comprehension skills.

Part of the instruction is simply explaining these principles, but effective teachers also explicitly demonstrate the relevant cognitive processes. They narrate their thoughts in solving a problem, interpreting a segment of text, or processing and sorting an unfamiliar piece of information. This instruction provides examples of successful strategies that students can adopt.[35] With careful planning, teachers create situations in which their demonstrations invite and encourage analogous demonstrations from their students. Feedback in the form of guidance and questions ensures not only that the skills are developed, but also that using them becomes a routine part of the students' approach to schoolwork.

Teacher modeling of these processes can yield serendipitous benefits. For example, students can observe "patience, confidence, persistence in seeking solutions through information processing and rational decisionmaking" and ways of gaining "from information supplied by mistakes rather than giving up in frustration."[36] Students can learn by watching their teachers engage in favorite pursuits. Teachers who enjoy writing can invite their students to join them in one of their writing tasks; teachers who enjoy sewing can invite students to help them design a pattern, choose colors, and determine how much fabric is required. (Imagine the lessons in mathematics and reasoning derived from considering the amount of fabric needed as the fabric choices change from solids, to prints, to stripes.) In these cases, students can observe the satisfaction and joy that come from completing serious but pleasurable tasks. For disadvantaged students, these lessons can be as valuable as any others they learn in school.

The following instructional programs have been shown to be effective in teaching comprehension skills to disadvantaged students:

Reciprocal Teaching

Students are taught four comprehension strategies: summarizing the content of a passage, asking a question about the central point, clarifying the difficult parts of the material, and predicting what will come next. In reciprocal teaching, the teacher demonstrates these strategies by reading a short passage and illustrating their use. With the next passage students assume the teacher's role and model the strategies, with the teacher providing

guidance and feedback. After several hours of practice, control gradually shifts from teacher to students, with the teacher interrupting to provide prompts and help on a less and less frequent basis.[17]

The Higher Order Thinking Skills (HOTS) Program

With this program, which is disseminated through the National Diffusion Network (NDN), disadvantaged students complete intellectually challenging computer games and instructional programs while engaged in conversations with teachers that focus on the cognitive strategies involved in their tasks. Teachers maintain a certain ambiguity in their interactions so that students are forced to interpret meaning and articulate ideas and strategies on their own. To motivate them, students have access to challenging tasks on attractive equipment, rather than remedial texts and work sheets. In addition, students are encouraged to invite their classmates to the HOTS room to demonstrate the interesting things they are doing on the computers.[18]

To provide coherence to the student's day, intellectually challenging activities such as these are integrated throughout all the student's subjects.

Curriculum that integrates instruction in basic skills with challenging content

The discussion of clear goals and high expectations in Section I began by noting a fundamental shift in the educational goals recommended for disadvantaged youngsters. The recommended goals stress engagement in a curriculum that is rich in content and challenge. In a school that integrates challenging content with the teaching of basic skills, students master reading and mathematics skills through explicit instruction in these areas and also through the use of reading and mathematics in content learning, problem solving, and other applications.

In mathematics, for example, problem solving serves as the focus of instruction. This emphasis reflects the central recommendation of the curriculum standards developed and endorsed by the National Council of Teachers of Mathematics (1989). The following principles, which

describe the integration of complex content with instruction in basic skills, outline an effective mathematics curriculum for disadvantaged learners (from Knapp & Shields, 1990, summarizing Porter in Knapp & Shields, eds., 1990). Such a curriculum:

Disadvantaged students can master reading and math skills through explicit instruction plus the use of these skills in content learning, problem solving, and other applications.

- Emphasizes understanding of the mathematical concepts embedded in symbols, computation, and mathematical problem solving
- Reduces the emphasis placed on computational skills, especially in the upper-elementary grades
- Covers in depth a broad range of mathematical topics—such as geometry, estimation, probability, and statistics—rather than merely touching on them
- Provides frequent opportunities to apply mathematical ideas and skills to novel problems and real-life situations
- Reduces the redundancy in mathematics content across the grades

The NDN disseminates several math curricula that can help achieve these principles. They include the following:[9]

- The Comprehensive School Mathematics Program (CSMP), which is a complete mathematics curriculum for grades K-6, leads students through sequences of problem-solving experiences based on real-life situations and fantasy. A unique feature of CSMP is the use of nonverbal languages, which gives students immediate access to mathematical ideas and methods necessary for solving problems and also for continually expanding their understanding of mathematical concepts.
- Decision-making Math is a supplementary program for students in grades 7-9. It is designed to teach students step-by-step plans for solving math problems successfully. The program provides instruction in strategies for questioning and planning, interpreting and verifying, solving problems within cooperative learning environments, organizing and manipulating data, and analyzing and applying solutions.
- Sound Foundations replaces the traditional math curriculum

for low achieving math students in grades 9-12. It teaches integers, rational numbers, graphing, measurement, geometry, probability, statistics, and consumer math. The program is built around a simulation format involving a rock band. Students are given a budget of $41,000 and must guide the band financially through formation, equipment purchase, rehearsal, dance clubs, record sales, airplay, publicity, local concerts, away concerts, and a national tour.

Comparable principles of application, analysis, and interpretation underlie current knowledge about the most effective ways of developing the reading and writing skills of disadvantaged students. As Moll reports (in Knapp & Shields, eds., 1990), recent research on literacy and language learning highlights the importance of students interacting frequently, purposefully, and meaningfully with language and text.[40] This work, as summarized by Moll, stresses the importance of children learning language and literacy as a medium of communication, not as a static subject with isolated facts and skills. Students master specific literacy skills to make full use of language for communication. This approach is described in the 1985 report of the Commission on Reading, *Becoming a Nation of Readers* (Anderson, Hiebert, Scott, & Wilkinson).

The following principles, which blend sophisticated communication capacities with basic literacy skills, describe an effective language arts curriculum for educationally deprived children (from Knapp & Shields, 1990, drawing on Anderson et al., 1985; Farr & Daniels, 1986; and Garcia & Pearson in Knapp & Shields, eds., 1990):

Reading

- Emphasizes meaning (i.e., comprehending what is read) and employs the full range of cues (phonemic, contextual, and so on) as aids to "constructing" meaning
- Places less emphasis on the teaching of discrete decoding skills in isolation from their use, especially as children move up through the grades
- Exposes children to a wide range of appropriate text, including children's literature
- Includes reading material that reflects and respects the personal experiences and backgrounds of students

Writing

- Emphasizes meaningful written communication
- Teaches the mechanics of written language (spelling, punctuation, grammar) in the context of effective written communication
- Draws on the experiences and knowledge of students, as well as on realms of experience that are less familiar to students
- Introduces students to the process of writing and the skills appropriate to each stage of the process

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In describing a classroom in a school serving very disadvantaged children, Moll (in Knapp & Shields, eds., 1990) explains how many of the principles in literacy development can be implemented (pp. III-8 through III-9):

> In a lesson the teacher and seven students of mixed reading abilities discussed a novel they had been reading about the U.S. Revolutionary War. The teacher pointed out to the students the different personal relationships presented in the novel to capture how the war was affecting people's lives. In what resembled a conversation with the active participation of students,...the discussion included the teacher's and students' observations about the role of women in society, how different political allegiances could disrupt a family, the role of religious beliefs and family discipline, how a novel can make history more understandable, and the nature of colonialism....The teacher would monitor...the students' participation, contributions and understanding of the text, providing more time to some students, as needed.
>
> During regularly held reading conferences, students summarized what they had read, expressed their feelings about the story, indicated what they liked most or least about the story and why, predicted what would happen next and explained the bases of their predictions, confirmed or rejected past predictions, and compared the text to previous books read. The students often selected, depending on their interests, what books they wanted to read; the teacher selected the books she read aloud to the students. The students would also meet once a week with younger students, usually first graders, to read to them and to listen to them read.

These activities reflect a view that reading comprehension and written and oral expression are most effectively developed through functional, relevant, and meaningful language use. A major instructional goal of a teacher such as the one described here is to make the classroom a literate environment in which many language experiences can occur. Such a teacher rejects rote instruction and the fragmentation of reading and writing into skill sequences taught in isolation from communication.

Instruction that highlights meaning and understanding

As discussed earlier in this section, teachers in schools that serve disadvantaged students effectively understand that mastering content and understanding its meaning for their own lives and the lives of others are as important as learning basic skills. They also understand that basic skills can be learned most effectively in instructional settings that emphasize the application and enjoyment of knowledge.

The children of poverty typically have fewer chances to make connections between academic skills and real life than do other students.

Although American education has become increasingly successful in ensuring that all children master basic skills such as the decoding of words and simple computation, it has achieved less success in teaching students the skills and content knowledge needed to draw inferences, make connections among disparate pieces of information, and apply skills and information in new contexts. For example, although students in advanced reading groups learn that the purpose of reading is to derive meaning and understanding, students in low reading groups tend to think that the sole purpose of reading is to decode individual words accurately, according to Allington (1983). Similarly, students in remedial math programs may perceive that mastering their multiplication tables is an end goal of their math studies, rather than an essential step in solving common numerical problems.

Instruction that highlights meaning and understanding is even

more important for children from impoverished backgrounds than it is for other children. Knapp and Shields (1990) observe that the children of poverty are especially prone to experience the negative results of a curriculum focusing solely on basic skills. They typically have fewer chances outside of school to make connections between academic skills and real life than do other students. Because they may not see as many direct applications of academic learning in their everyday lives, disadvantaged students may see less purpose than do other students in learning tasks that are narrowly focused on specific skills. As a result, they are more likely to need help in understanding, for example, the connection between adding, subtracting, multiplying, and dividing on the one hand and solving complex problems on the other. Further, they need help and encouragement to understand how these connections and the more sophisticated skills they represent can help them in after-school jobs and in everyday activities, such as shopping for groceries and clothing.

Knapp and Shields (1990) describe a curriculum that is narrowly focused on discrete skills as one which falsely assumes that: (a) certain skills are so basic that they must be mastered before learning more advanced skills; and (b) these basic skills are best mastered when taught apart from other skills and situations to which they may be applicable. They express serious concern about such a curriculum, maintaining that: (a) comprehension and analysis are lost when lessons focus on a single skill; (b) a sense of purpose is lost when skills are not applied to appropriate situations; and (c) students may fail to progress if they continually struggle to master basic skills before advancing to higher skills.

Based on research in these areas, Garcia and Pearson (in Knapp & Shields, eds., 1990) describe the key components of a reading curriculum that highlights meaning and understanding and is also targeted to at-risk students. (Although these components are described in connection with reading, they are applicable to mathematics and other subject areas.) The components include:

- **Teacher modeling**, in which the teacher demonstrates how comprehension strategies are applied in real reading situations
- **Authenticity**, in which reading instruction uses texts that have been written for the purpose of telling a story or communicating

a message, not as a reading exercise only

- **Scaffolding**, in which the teacher helps the novice reader develop conceptual frameworks for understanding complex ideas or information
- An increasing degree of **student control**, in which students actively participate in planning their reading and writing activities and evaluating their own performance

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A good example of a reading and language arts program with these components is described by Allington and Johnston (in Slavin, Karweit, & Madden, eds., 1989) and Walmsley (1986). Although initiated as a redesign of the Chapter 1 elementary reading program in a small rural district, the program has evolved into a comprehensive reading and language arts curriculum for the district's single elementary school.

> The program design was guided by three principles—that reading and composing would be the heart of the language arts curriculum, that skills would be learned primarily through application, and that remedial learning would employ the same learning materials as the regular language arts program. The program uses mainly trade books, supplemented by shorter pieces of literary fiction and nonfiction, magazines, and newspapers. Classroom and support teachers work together to select themes (which sometimes involve social studies and science) and identify books, articles, and excerpts of varying difficulty on each theme. All teachers read all the materials and then collaborate on developing lessons and instructional activities. Skills such as identifying the main idea are developed in the context of literary works, rather than exercises. Writing activities include short-answer writing to assess comprehension, extended writing related to the reading theme, and writing of the student's choice. Grammar, spelling, and handwriting are developed in the context of students' writing rather than through isolated exercises.
>
> The program has required extensive planning and staff development, but the district believes that the significant improvement shown in students' literacy skills has justified the effort.

A curricular program that integrates content learning and reading/language arts instruction is Learning to Read Through the Arts, an interdisciplinary program developed in New York City for Chapter 1 students in grades 2-7. The program, which is disseminated through the NDN, includes both art and reading workshops. In the art sessions,

which involve dance, music, theater, crafts, sculpture, painting, printmaking, super-8 film, and photography, activities are structured to stress listening, speaking, writing, and reading. Students visit local museums, dance companies, and other cultural institutions and learn how these resources contribute to the community and to students' own lives. Reading instruction is closely geared to the art activities, and is complemented by parent workshops.

Despite the advantages of a curriculum emphasizing meaning and understanding, teachers of disadvantaged students sometimes avoid it out of a concern that it will place unrealistic demands on their students. Brophy (in Knapp & Shields, eds., 1990) suggests actions that teachers can take to help disadvantaged students succeed in a curriculum that emphasizes meaning and understanding. In addition to components highlighted by Garcia and Pearson (listed above), teachers can also help disadvantaged students succeed by providing:

- More explanation of the purposes of activities
- More guided reflection to recognize and appreciate
  - how the activity fits into the bigger picture of what the student is learning overall
  - the learning strategies involved in accomplishing the activity
  - the value of the accomplishment itself in increasing the student's knowledge and skill

Recognition that students sometimes learn best by directing their own learning and by working together

Mastery of complex content and development of thinking skills ultimately require students to take responsibility for their own learning. Effective teachers create opportunities for students to learn on their own, and they recognize that learning can be enhanced when students work together and are able to profit from each others' successes and mistakes.

Instruction that includes opportunities for students to take re-

sponsibility for their own learning requires careful planning, especially in assisting students to develop conceptual frameworks (or "scaffolding") for organizing and connecting what they are learning. Within a particular instructional unit, the teacher provides a high level of direction early on and gradually allows students to work more independently as the unit progresses.

Teacher-led discourse can help students learn how to take control of their own learning and to work cooperatively with each other.

These recommendations do not imply a *laissez faire* learning environment, in which students pursue whatever strikes their fancy. Consider the following advice from Brophy (in Knapp & Shields, 1990, p. IX-10):

> I see active instruction by the teacher as crucial here. Experience with...forms of individualized instruction that minimize the teacher's instructional role and require students to attempt to learn mostly on their own by working through programmed curriculum materials has shown that these approaches are less effective than teacher-led group instruction, especially for disadvantaged students....What these students need is a great deal of active instruction and guidance from the teacher. This does not mean extended lecturing, although brief teacher presentations of information and cognitive modeling of skills applications are important sources of input to the students. What it does mean is a great deal of teacher-led discourse surrounding the content, in which the teacher uses questions to stimulate the students to process and reflect on the content, recognize the relationships and implications of its key ideas, think critically about it, and use it in problem solving, decisionmaking, or other higher order applications.[41]

What is necessary then is more, not less, engagement by teachers. Note, for example, the term "teacher-led discourse." The process of questioning students in the manner Brophy suggests can lead them to take control of their own learning. The questioning process may occur as relatively short verbal interactions between students and teacher, or it may include tasks or projects that cause students to engage in the various cognitive activities that Brophy identifies.

Watson and Konicek (1990) describe how an elementary school science lesson provided an opportunity for students to direct their own learning.

> The teacher began a lesson on heat by asking students about sources of heat. Responses included the sun, "our bodies," sweaters, and rugs. At this point, the teacher stopped the discussion and issued the invitation: "lets find out." Thermometers were placed in sweaters, hats, and rolled jackets for 15 minutes. After observing that the temperature did not increase, the students concluded that they had not left the thermometer in the items long enough. After all, as one student pointed out, when the doctor takes your temperature the thermometer has to stay in your mouth for awhile. After leaving the thermometers in the various items overnight the students were baffled by the lack of rise in the temperature but insisted that the problem was not that the garments were not sources of heat but they had still not left the thermometers in long enough.
>
> After three days of discussion, some note taking, and no increase in the temperature of these objects which the students thought were sources of heat, the students had reached an impasse. Their theory about these objects as heat sources was inadequate, but they had no substitute. To resolve the problem students arrived at two alternative hypotheses. The first was the proposition that the students had believed from the beginning. Heat can come from anything, but sometimes the cold air gets in and the temperature drops. The second alternative was that heat comes from the sun and human bodies and that clothing traps the heat and keeps it inside. Through focused testing of the two alternatives, the students concluded that the latter proposition was accurate.

This example illustrates how active teaching encourages students to take responsibility for their own learning. The teacher in this case was a guide, a facilitator, a mentor, and a coach. She posed options to be considered and created a framework in which testing and analysis could occur. The framework was carefully structured to lead students towards satisfying answers to their questions. Note how she took advantage of students' initial misconceptions—or what would be considered errors in traditional settings—to promote intellectual growth.

As this example illustrates, a potent complement to students' capacity to take responsibility for their own learning is their ability to

explore and test their ideas and conclusions in discourse with other students. The simplest way to encourage students to learn from each other is to invite them to do just that. Teachers can, for example, initiate student discussions of a passage the group has read or the variety of solutions possible for a mathematics problem. In organizing these experiences, effective teachers make it clear that they expect students to talk to each other in a genuine exchange of information and ideas. In these sessions, teachers are facilitators and coaches.

A useful way of organizing groups of students for learning from each other is cooperative learning.[42] This strategy is based on the assumption that if a group of students is rewarded for the success of all its members, the students will be encouraged to help and learn from one another. In cooperative learning, students work in mixed-ability teams with four or five members. Teachers provide instruction to groups of students who share similar proficiency levels. Students then return to their teams to help one another master skills and prepare for teacher assessments and tests, which are taken individually. Teams are rewarded for their overall level of achievement.[43]

The presence of Chapter 1 support in a school can limit certain forms of student grouping such as those used in cooperative learning. These constraints occur because program rules require that students with the greatest educational needs in a given subject and grade be selected for supplementary services. These rules have commonly been interpreted as limiting flexibility in student grouping. In fact, however, grouping for Chapter 1 instruction can be conceived as one component within the school's overall plan for grouping. Thus, for example, a cooperative learning model can easily be used during a part of the school day when Chapter 1 participants are spread across student teams for regular coursework.

An example of such an approach used in teaching reading is a program developed at the Johns Hopkins University and disseminated through NDN, Cooperative Integrated Reading and Composition. Students in grades 2-6 are assigned to reading groups according to their reading level, and they also work in teams composed of two pairs of students with different reading abilities. Within teams, students engage in partner reading, discussion of story elements, summarizing stories for one another, and story retelling. Students learn how to question and check partners and teammates. Teams compete to earn points for their joint successes.

Educational technology can help students direct their own learning, whether individually or with their peers.

Sheingold (1989) describes projects that use technology to teach at-risk youngsters:

- **Earth Lab** is a local-area network used in the earth science curriculum for fifth and sixth graders in an inner-city elementary school. Using a word processing system, an electronic mail network, and a database program, students collect and store data from a weather station constructed on the roof of their school. Applying these data to practical questions, students learn to analyze the information they collect and to make and test predictions about weather patterns.
- The **Immigrant Project**, designed as part of Harvard University's Project Zero, includes a social studies unit for grades 5-8 that simulates the experiences of Irish immigrants who settled in Boston in the 1850s. Students use computers, inexpensive software, and a project database to recreate and explore the experiences of these immigrants. Students begin with the list of actual passengers who journeyed to Boston during this period and use detailed information about costs and conditions of life in Boston during that time to examine the decisions immigrants faced in their new environment.

Other uses of technology also hold promise. For example, inexpensive word processing programs make it easier for students to revise and improve their writing. They also help students and teachers to interact around specific examples of student work.

Assessment that informs students and others of students' progress in skill development and in applying new knowledge

In a school that emphasizes content learning, student understanding, and the development of comprehension skills, the assessment of individual student performance and schoolwide effectiveness involves measuring the content understanding of students and their ability to

apply newly acquired skills and information in unfamiliar contexts. Because basic reading and mathematics skills are essential tools in these higher level capabilities, effective assessment includes practical measures of proficiency in these basic skills.

The school may find, however, that its traditional assessment arrangements are inadequate for fully measuring competence in this new configuration of skills and learning tasks. In particular, standardized tests that rely on multiple choice responses may be poor measures of either higher order comprehension or students' skills in applying knowledge in new contexts. Because most multiple choice tests do not show students' reasoning, they cannot indicate when students reach the right answer via the wrong reasoning path and vice versa.[44] The use of multiple choice tests as the primary method of assessing student mastery of the curriculum may unintentionally discourage teachers from stimulating student curiosity and creativity, since the classroom activities used to develop those traits may not produce high test scores.

Effective assessment measures students' knowledge of content, their skills in organizing information and determining relationships, and their ability to apply strategies that promote understanding.

Some educators are experimenting with alternative forms of assessment that can complement the curricular emphasis on comprehension and application. These methods are consistent with theories of multiple intelligences, which suggest that educational assessment be broadened to measure a wider range of abilities than are traditionally tested in school.[45]

Alternative assessment methods, including some in the development and trial stages, include:

Portfolio assessment

Samples of a student's work are compiled into a portfolio, which includes: (a) examples of the student's finished products and documents indicating the process used to develop the product; (b) the teacher's observational notes on student progress; (c) student self-evaluations; and (d) notes from student/teacher conferences. Specially trained evaluators review the contents of each portfolio to ascertain overall student progress.[46]

Exhibition of mastery

At key transition points such as high school graduation, students are required to demonstrate their mastery of a subject area through an oral presentation or a comparable activity.[47]

"Teach-back"

Students demonstrate their depth of knowledge in a subject by teaching the material to a student unfamiliar with the area.[48]

These methods are consistent with the purposes that Gonzales and Grubb (1989) identify for assessment, which are to measure students' knowledge of content, their ability to organize information and determine relationships, and their ability to apply strategies that promote understanding. Along with other measures of achievement, these methods can inform students, parents, teachers, and others of students' academic growth. In a Chapter 1 setting, for example, alternative assessment methods may be especially appropriate for measuring "other desired outcomes."

Recognition and rewards for academic excellence

A school that emphasizes academic achievement and intellectual growth honors those who demonstrate these values in their efforts and accomplishments. Rewarding these students encourages them to continue their hard work and can also motivate their peers to increase their own efforts to succeed.

An academically challenging curriculum may, however, create special problems in a school that sets high standards. Research by Doyle (1983) and others has demonstrated that students, like other people, tend to resist difficult assignments and prefer less challenging activities. In fact, to press for easier work, students sometimes use classroom order as a bargaining chip. They also adopt tactics such as limiting their output, demanding clarifications, and lobbying for high grades.[49] These potential problems make it important for schools that employ a challenging curriculum to use creative methods for stimulating students' motivation.

Although rewards for effort and achievement tend to be fairly straightforward in the elementary grades, they present considerably more problems at the secondary level. In communities where disadvantaged youth hold out little hope for their own futures, they may ridicule their classmates' efforts to succeed. In this environment, high achievers and hard workers may not want their accomplishments singled out. Research by Fordham and Ogbu (1986) found that these problems are particularly serious for low-income black students who fear the accusation that they are "acting white."[50]

The special challenges of an academically demanding curriculum require schools serving disadvantaged students to use creative methods for stimulating students' motivation.

In a recent study of Chapter 1 projects in secondary schools, Zeldin, Rubenstein, Bogart, Tashjian, and McCollum (1991) identified rewards that are good reinforcements for successful students and effective motivators for other students:

- Secondary students almost always enjoy making career-related visits to local employers. In a school that uses visits as a reward for academic effort, students (in some cases, academic teams or classes) dress up in their best clothes, tour a local business, meet some of its employees, and learn about their work and how they prepared for it. Business and civic groups will sometimes defray the costs of outings such as this one (including a restaurant meal).
- Secondary schools sometimes also organize "reward" trips to an amusement park, camp site, or other special place that students value as a recreational destination.

In secondary schools where academic achievement is a widely shared goal, students value grown-up versions of rewards that are also successfully used in elementary schools. These include announcements on bulletin boards and articles in the newspaper about student successes, special recognition from the principal, and prizes that are relevant to students' achievements (such as books and theater, concert, or movie tickets).

In these schools, staff include parents in the recognition process.

As a minimum, parents are invited to award ceremonies and other recognition activities, which require scheduling the activities at times that are convenient for parents.

A principal at a junior high school serving a high proportion of disadvantaged youngsters turned a familiar stereotype to his advantage as he drew parents into the recognition process. Every adult "knows" that principals never call them at work with good news about their children. When the call comes to the workplace the news is not only bad, it is also public. This principal changed that stereotype by making a point of calling parents at work to inform them of their children's special accomplishments. He insisted that parents be called to the telephone to take the message. This, of course, ensured interest and stimulated the curiosity of co-workers. Following the call, parents returned to their duties obviously obliged to share the good news about their children—an opportunity few parents can resist.

This and other strategies for including parents in recognizing their children's achievements can help to cement the relationship between schools and communities. For disadvantaged parents who themselves may have histories of failure in schools, strengthening this relationship is particularly important. Recognizing parents for their contributions to their children's achievements generates even more goodwill and support.

Classroom management that is keyed to learning tasks

Successful teachers are, among other things, effective classroom managers. They know how to work with students to establish orderly environments for learning, using management skills that are important in many contexts. These skills are especially important for teachers of disadvantaged students because these students may live in chaotic environments and may have had to learn adaptive behaviors for coping with those conditions. (These behaviors—for example, assuming a tough expression or swagger to discourage bullies—may be vitally important to disadvantaged youngsters; while school staffs may prefer otherwise,

some of these coping behaviors should be preserved.) Teachers of disadvantaged students must, therefore, learn to work with students who are unfamiliar, possibly even uncomfortable, with the behaviors required for productive participation in classroom activities. As in all personal interactions, this is ultimately a process of defining and building a social order that is understood and accepted by all of the participants.

The teacher's principal management task is to create and sustain levels of classroom order that are appropriate to the instructional goals being addressed.

Until recently, concerns about classroom management in schools serving disadvantaged students focused on enforcing discipline and controlling disruption. Strategies for dealing with these problems tended to be punitive and remedial. McCollum (in Knapp & Shields, eds., 1990) states that the focus of research on classroom management in schools for disadvantaged youngsters has shifted from these rather limited—and limiting—issues to "(1) a view of management and order as being closely connected to academic and instructional strategy and (2) 'preventive' rather than 'remedial' approaches to establishing orderly classrooms" (p. XII-15). In fact, as McCollum also observes, research conducted over the past two decades has found that effective and ineffective classroom managers are mainly distinguished by the extent to which they establish situations in which disruptive behavior is unlikely to occur at all.

From this perspective, the teacher's principal management task is to create and sustain levels of classroom order that are appropriate to the particular instructional goals being addressed. This standard requires continuous decisionmaking by the teacher, with decisions complicated by the fact that the criteria for what constitutes an orderly learning environment will vary as instructional activities change. For example, the type of order necessary for the teacher to make a direct presentation to a class is quite different from what is necessary when students are working together in small groups. Successful managers are aware of these differing requirements and expectations, and they work hard to help their students understand them.

Successful classroom management is not simply the result of thoughtful application of appropriate strategies, however. Instead, as all teachers—particularly those of disadvantaged youngsters—know,

particular student characteristics and motivation can make it more or less difficult to establish and maintain order. McCollum cites research by Metz (1978) that indicates greater similarities in the degree of order maintained by different teachers working with youngsters of the same ability level than in the classes of a single teacher working with students of different ability levels. Taking account of the inevitable variations, research on classroom management points to seven factors that distinguish teachers who are effective classroom managers from those who are not (McCollum in Knapp & Shields, eds., 1990). Effective managers:

- Establish the rules and procedures of the classroom early in the year and communicate them explicitly
- Continually monitor compliance with rules
- Use detailed and consistent accountability systems, keep track of student assignments, and describe the evaluation system clearly
- Communicate information, directions, and objectives clearly
- Organize instruction efficiently, waste little time getting prepared or making transitions, keep the momentum in lessons, and maximize student engagement
- Seem to "have eyes in the backs of their heads"
- Understand classroom context and events and use this information to develop activities that maintain the instructional flow with minimal interruptions

These behaviors can guide development of a checklist for principals and teachers to use in reviewing classroom management strategies and identifying areas for improvement.

SECTION IV

Accountability in Effective Schools for Disadvantaged Students

Schoolwide accountability for learning, supported by regular assessment to provide feedback and guide improvement

The teachers and administrators in effective schools recognize their responsibility for student learning. Establishing clear goals and building consensus around them, creating solid instructional programs and high standards for student achievement, and assessing student performance in light of these standards can form a framework for measuring schoolwide effectiveness. This information-rich framework can also contribute to setting (and revising) goals for change and improvement. Indeed, a focus on evaluation for improvement purposes has been shown by itself to promote effectiveness at the school level by changing the behavior of school staff.[51]

A focus on improvement-oriented evaluation can promote school effectiveness by changing the behavior of instructional staff.

In its report on successful elementary and middle schools serving disadvantaged students (noted in Section II), the Council of Chief State School Officers (1990) reported that one of the common ingredients of school improvement was a comprehensive evaluation of school programs and practices, often conducted internally by teams of teachers and parents. In organizing these teams, principals explicitly share decisionmaking authority with the teams and encourage them to gather information that can be used to diagnose problems and establish goals for improvement.

As described in the Chiefs' report, observers of schools that conducted such evaluations found several benefits. First, this type of

evaluation generated a sense of ownership and responsibility within the school community. Second, because the process was conducted internally, it did not present a threat to members of the school community, and hence the teams were able to gather comprehensive information. Third, because of the sense of ownership that was engendered, the evaluation systems tended to become institutionalized as ongoing components of the school organization directed toward institutional improvement.[52] The School Development Program reviewed in Section I is an excellent example of how a successful internal review process contributes to school improvement.

Schools considering the establishment of school improvement teams may want to consider the following suggestions:

- Teams should be broadly representative of faculty, administrators, other building staff, and parents. In particular, Chapter 1 and other compensatory programs should be well represented.
- The principal should provide leadership, while delegating responsibility for specific tasks to the extent possible.
- Team meetings should be scheduled regularly, frequently, and at convenient times. This may require release time for school staff.
- Resources should be provided for staff training in student assessment and program evaluation.
- Student assessment should be clearly linked to instructional goals.
- When formal evaluation tools are not available, the team should work with faculty and staff to agree on appropriate alternative measures. For example, student portfolios and other systematically assembled examples of student work can be useful in assessing student mastery of complex content and higher order cognitive skills.
- The team should provide regular reports to the school community, with opportunity for review and discussion.
- The information and recommendations in the reports should be used to guide schoolwide decisions about curriculum, instructional methods, selection and orientation of new staff,

staff development, and procurement of new equipment and supplies.

The types of improvement stressed in the preceding sections of this guide can present special challenges to evaluators. For example, assessing the extent of intellectual challenge posed by the curriculum may require the application of sensitive qualitative measures. School-level evaluations will benefit from multiple sources of information, a variety of methodologies for collecting and analyzing information, and longitudinal perspectives on change. At the school, classroom, and student level, what is important is that the measures used for evaluation correspond to the school's educational goals and that the information produced be used to refine and improve instruction. The Chapter 1 provisions concerned with student and school improvement are consistent with these priorities and can facilitate the development of school-level accountability.

NOTES

1. Section 1001(b) of P.L. 100-297, the Augustus F. Hawkins-Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988.

2. See the report of Kennedy, Birman, and Demaline (1986), which is the second report of the National Assessment of Chapter 1, for a discussion of the evidence regarding Chapter 1 effects on student achievement. A central finding of this report is that "students receiving Chapter 1 services experience larger increases in their standardized achievement test scores than comparable students who do not. However, their gains do not move them substantially toward the achievement levels of more advantaged students" (p. 17).

3. Volume I of that report (Knapp & Turnbull, 1990) presents a summary of themes in the research literature concerned with (a) curriculum and instruction in mathematics and literacy and (b) instructional strategies and classroom management. Volume II (Knapp & Shields, eds., 1990) presents commissioned papers and summary chapters that discuss the themes. Subsequent reports of the study will present the results of new research conducted in classrooms serving disadvantaged children.

4. Based on a national survey, the final report of the National Assessment of Chapter 1 (Birman, Orland, Jung, Anson, Garcia, Moore, Funkhouser, Morrison, Turnbull, & Reisner, 1987) states that a Chapter 1 participant typically receives project services for about 30 to 35 minutes each day.

5. This term is used by Little (1990), who attributes it to Schlecty (n.d.).

6. Gideonse (in Elmore, ed., 1990), in which Gideonse draws on the work of Darling-Hammond (1987).

7. Brophy (1987) reviews and synthesizes findings from current research on student motivation. He finds that motivation can be encouraged through teacher modeling, communication of high expectations, and the use of active instruction. He also recommends strategies teachers and principals can employ to increase students' academic motivation.

8. For discussions of this research and its theoretical base, see Allington and Johnston (in Slavin, Karweit, & Madden, eds., 1989); Brophy (1987); Epstein and Salinas (1990); Guthrie (1989); Knapp and Shields (eds., 1990); National Commission on Excellence in Education (1983); Oakes (1989); and Slavin, Madden, and Karweit (in Slavin, Karweit, & Madden, eds., 1989).

9. In his synthesis of research on student motivation, Brophy (1987) bases his analysis on Feather's "expectancy times value" theory (1982), in which the amount of personal effort applied in a situation is a product of the expectancy for success and the value placed on the outcome. Brophy lists four preconditions for the successful implementation of any motivational strategy: meaningful learning objectives, a supportive environment, an appropriate level of challenge, and a moderate and optimal use of special motivational strategies.

10. Oakes (1989) cites Cohen (1983), Little (1982), and Rosenholtz (1985) in this discussion.

11. See Secada's critique of prevailing definitions of educational disadvantage (in Knapp & Shields, eds., 1990).

12. Swap (1990) refers to Heath (1983) in describing this project.

13. See Neufeld (in Knapp & Shields, eds., 1990) for a summary of research on this point. Neufeld draws on Ogbu's (1987) description of an historically based operational frame of reference to describe the problems experienced by racial and ethnic minorities in participating in mainstream institutions. She also draws on the work of Erickson (1986, 1987) and Comer (1980a, 1980b, 1988a, 1988b) to describe the problems experienced by disadvantaged minority students as a result of differences between their home culture and that of the school. Although these analyses are based on research involving racial and ethnic minorities, they can also apply to nonminority children of poverty. Whether the explanation is historical (as Ogbu suggests) or cultural (as Comer and Erickson conclude) or both, the result, according to Neufeld, is that disadvantaged children can experience problems understanding the demands of school; they may find that school is very different from home in terms of interactional patterns and values and that it aims to prepare them for a world that is closed to them.

14. Described by Johnson (1990).

15. The findings of this research are summarized in Zeldin and Bogart (1989). This body of work concludes that parents from many cultural backgrounds tend to internalize stereotypes about their social or ethnic group and that parents from low-status backgrounds tend to feel powerless in affecting their children's education. These perceptions are reinforced by teachers' tendencies to contact parents about problems but not about successes.

16. See Epstein (1984); Dougherty and Dougherty (1977); Herman and Yeh (1983); Sheats and Dunkleberger (1979); and Walberg, Bole, and Waxman (1980). These reports are discussed in Zeldin and Bogart (1989).

17. Successful strategies used by state educational agencies and local school districts are described in a report of the Council of Chief State School Officers (1989).

18. Oakes (1989) draws on the work of Armor, Conry-Oseguera, Cox, King, Pascal, Pauly, Zellman, and McDonnell (1976); Little (1982); Rosenholtz (1985); and Rutter (1983).

19. Other practices that Stedman (1987) found were associated with school effectiveness in serving disadvantaged students were: ethnic and racial pluralism, parent participation, shared governance with teachers and parents, academically rich programs, personal attention to students, student responsibility for school affairs, a supportive environment, and teaching aimed at preventing academic problems.

20. Included as "promising" programs for education in the middle grades were those selected for dissemination by the Education Department's National Diffusion Net-

work, programs selected by the Chapter 1 Recognition Program, and other programs described in journals, conferences, and other publications. Only programs that included evaluations were reviewed. In addition to coordination of supplementary and regular instruction, other central features identified by Epstein and Salinas are: efficient and comprehensive management systems, temporary (rather than permanent) student grouping, consideration for individual learning styles, involvement of students' families in the learning process, student responsibility for learning, and additional staff and resources.

21. For a summary of these studies, see Allington and Johnston (in Slavin, Karweit, & Madden, eds., 1989). The authors cite Archambault and St. Pierre (1980), Kimbrough and Hill (1981), and Ligon and Doss (1982), who report that participation in support programs leads to loss of core instruction and that participants in support programs tend to receive less overall instructional time.

22. See, for example, the emphasis on instructional coordination in the original version of Volume I, *The Effective Compensatory Education Sourcebook* (1985). This theme has been repeated frequently in the contacts between Chapter 1 Technical Assistance Centers and educational agencies.

23. This list was derived from the work of Allington and Johnston (in Slavin, Karweit, & Madden, eds., 1989) and Little (1981), as cited by the Pennsylvania Department of Education (1989).

24. See Levin (1984) for a review of the findings of the Beginning Teacher Evaluation Study, which explored instructional time in depth.

25. Peng, Owings, and Fetters (1982) reported this finding based on an analysis of achievement and schooling data from High School and Beyond, a major national survey of students and their schools.

26. According to Birman (1988), only 2 percent of public elementary schools with Chapter 1 offer compensatory education before or after the regular school day, and only 10 percent offer it during the summer.

27. Garcia and Pearson (in Knapp & Shields, eds., 1990) refer to this research and conclude that, without the use of prior experience, readers cannot determine what is important in texts, draw inferences, or monitor their own comprehension.

28. This instructional activity is reported by Moll (in Knapp & Shields, eds., 1990).

29. Moll (in Knapp & Shields, eds., 1990) describes classrooms in which teachers encourage students to relate the content of classroom instruction to their own lives and to use their personal experiences to clarify what they learn about unfamiliar places, events, and people.

30. See also Brophy (in Knapp & Shields, eds., 1990) for a discussion of how the differences in the non-school experiences of disadvantaged youngsters and their more advantaged peers affect preparation for learning in school. Comer (1988a) discusses research that has established a connection between student background and educational

achievement. This research finds that characteristics brought from the home, including speech patterns, behavioral standards, attitudes toward school, and view of the future, affect students' perceptions of school. In particular, some students from low-income families are not familiar with the culture valued in their schools (e.g., an emphasis on obtaining knowledge and enjoyment from books). As a result, these students may fall behind in their studies due to their lack of prior preparation, and teachers may misdiagnose students' abilities due to their different behavioral and speech patterns.

31. See Cazden (1986), Delpit (1988), and Tharpe (1988). These analysts discuss ways that educators can reduce incongruities between students' homes and the school and thus decrease the problems that disadvantaged students experience.

32. In connection with this, Brophy describes the importance of teachers serving as counselors to disadvantaged students and developing close relationships with them. To perform effectively in this role, teachers need to monitor students' behavior frequently and intervene as necessary, offer support in resolving problems during and outside of class time, refrain from engaging in power struggles, foster open communication, negotiate standards for acceptable behavior, insist that students accept responsibility for their own actions and offer them support in doing so, and develop trusting relationships with their parents.

33. See Resnick (1987), for example. See also Peterson (1988), in which she refers to research conducted by Kirby (ed., 1984), Pressley and Levin (eds., 1983a, 1983b), and Weinstein and Mayer (1986).

34. The strategies listed are described by Garcia and Pearson (in Knapp & Shields, eds., 1990). Garcia and Pearson present a current theory of reading—known as interactive, strategic, schema-theoretic, or social-cognitive—that is derived from cognitive psychology and the psychology of language. This theory suggests that readers constantly strive to create meaning from a text through an interactive process influenced by: (a) the reader's knowledge, skills, and reasoning strategies; (b) the texts's structure, graphics, and purpose; and (c) the context, including the environment and cultural values. Both expert and novice readers use this interactive process, but their abilities to comprehend texts of various difficulties differ. The comprehension strategies described by Garcia and Pearson are derived from the work of Pearson, Dole, Duffy, and Roehler (in press) in which they determined comprehension strategies used by expert readers. These authors report that comprehension strategies can be employed at any level and that the capabilities of readers to utilize these strategies change over time.

35. See Garcia and Pearson (in Knapp & Shields, eds., 1990). Although many thought processes are abstract and hard to communicate, teacher modeling provides a means by which teachers can communicate thinking strategies in a concrete manner, thus providing easier access for students.

36. Brophy (1987), p. 48.

37. Palinscar and Brown (1984), as discussed by Doyle (in Knapp & Shields, eds.,1990).

38. Pogrow (1987) and Pogrow and Buchanan (1985), as discussed in Doyle (in Knapp & Shields, eds., 1990).

39. Programs disseminated by NDN are summarized in U.S. Department of Education and the National Dissemination Study Group (1991).

40. Moll cites Edelsky (1986), Farr (1986), Goodlad (1984), Goodman (1986), Langer (1984), Langer and Applebee (1986, 1987), Moll and Diaz (1987), and Oakes (1986).

41. See McCollum (in Knapp & Shields, eds., 1990). After reviewing research on effective instruction, she reaches the same conclusion as Brophy. She also recommends an active role for teachers and urges a "balance of teacher-direction and student-direction" (p. XII-22).

42. See Peterson (1988) for further discussion of cooperative-learning strategies and effects. To confirm the positive effects of small-group cooperative learning as a complement to whole-class instruction, Peterson cites the research of Peterson and Janicki (1979); Peterson, Janicki, and Swing (1981); and Peterson, Wilkinson, Spinelli, and Swing (1984). The academic gain from this approach is a result of the task-related interactions that occur in the cooperative groups. Students learn as they help others with their work—by explaining answers or explaining why answers are wrong. However, drawing on the research of Peterson, Wilkinson, Spinelli, and Swing (1984), Peterson notes that elementary students may first need training in group interaction processes to enable them to work effectively in small groups.

43. For more information about specific variations of cooperative learning, see Slavin (1988). Jigsaw Teaching and Group Investigation and Student Teams-Achievement Divisions are such variations. Slavin and Madden (in Slavin, Karweit, & Madden, eds., 1989) discuss Team Accelerated Instruction and Cooperative Integrated Reading and Composition as examples of instructional approaches that combine cooperative learning with the continuous progress method.

44. Nickerson (1989).

45. Gardner and Hatch (1989) posit seven primary types of intelligence, including logical-mathematical, linguistic, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal.

46. Valencia (1990) specifies four rationales for portfolio assessment: (a) they allow for assessment that is authentic both in terms of the tasks themselves and in the context in which the tasks are performed; (b) assessment becomes a continuous process; (c) assessment can include measurements of student interest, motivation, metacognitive knowledge, and strategies; (d) students and teachers are able to collaborate and reflect upon the assessment.

47. Sizer (1984) describes exhibition of mastery as a true evaluation of each student's abilities. Furthermore, according to Sizer, exhibitions can serve as strong incentives for both teachers and students because they can signify the completion of a process that holds the student at its center.

48. Rogers (1989).

49. Doyle's findings are supported by Carter and Doyle (1982), Davis and McKnight

(1976), and Jorgenson (1977). They are summarized by McCollum (in Knapp & Shields, eds., 1990).

50. Based on their ethnographic study at a predominantly black high school, Fordham and Ogbu (1986) concluded that black students in this school were psychologically bound by a "fictive kinship" that resulted in a strong group loyalty and identity. An important element in this bond was a shared designation of certain attitudes and behaviors as "white" and therefore unacceptable. To preserve their bond, black students employed various strategies to discourage "white" activities, which in their view included academic success. In explaining these attitudes, Fordham and Ogbu said the students had internalized the negative stereotypes used to denigrate the intellectual capabilities of blacks and define academic success as a "white" accomplishment. Thus, working hard in school was considered "acting white," and high achieving black students were ridiculed with the label "brainiac."

51. Drawing on the work of Little (1982), Rosenholtz (1985) notes that the staff of effective schools are committed to the collective improvement of their programs. Thus, inexperienced teachers can confidently request assistance from more experienced teachers, and collegial exchange can become a norm for teacher behavior.

52. The Chiefs' study also found that, in the few cases in which the school evaluation process was initiated and/or supported by an external agency, it did not become an integral part of the school. The exception was outside involvement that was limited to the collection of data that were turned over to school staff for their use.

REFERENCES

Allington, R. L. (1983). *Designing effective compensatory education instruction: A review.* New York: State University of New York at Albany.

Anderson, C. S. (1982). The search for school climate: A review of the research. *Review of Educational Research, 52,* 368-420.

Anderson, R. C., Hiebert, E. H., Scott, J. A., & Wilkinson, I. A. (1985). *Becoming a nation of readers: The report of the Commission on Reading.* Urbana, IL: Center for the Study of Reading, University of Illinois.

Anderson, R. C., Spiro, R. J., & Anderson, M. C. (1978). Schemata as scaffolding for the representation of information in connected discourse. *American Educational Research Journal, 15,* 433-440.

Archambault, F. X., & St. Pierre, R. G. (1980). The effect of federal policy on services delivered through ESEA Title I. *Education Evaluation and Policy Analysis, 2,* 33-46.

Armor, D. J., Conry-Oeguera, P., Cox, M., King, N., Pascal, A., Pauly, E., Zellman, G., & McDonnell, L. (1976). *Analysis of the school preferred reading program in selected Los Angeles minority schools.* Santa Monica, CA: RAND Corporation.

Barth, R. (1990, March). A personal vision of a good school. *Phi Delta Kappan,* 512-516.

Batts, V. (1983). Knowing and changing the cultural script component of racism. *Transactional Analysis Journal, 13,* 255-257.

Birman, B. F. (1988, Spring). How to improve a successful program. *American Educator,* 22-29.

Birman, B. F., Orland, M. E., Jung, R. K., Anson, R. J., Garcia, G. N., Moore, M. T., Funkhouser, J. E., Morrison, D. R., Turnbull, B. J., & Reisner, E. R. (1987). *The current operations of the Chapter 1 program.* (Final report from the National Assessment of Chapter 1.) Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Brookover, W., Beady, C., Flood, P., Schweitzer, J., & Wisenbaker, J. (1979). *School social systems and student achievement: Schools can make a difference.* New York: Bergin.

Brophy, J. (1987, October). Synthesis of research on strategies for motivating students to learn. *Educational Leadership,* 40-48.

Carter, K., & Doyle, W. (1982, March). Variations in academic tasks in high- and average-ability classes. Paper presented at the annual meeting of the American Educational Research Association, New York.

Cazden, C. (1986). Classroom discourse. In M. Wittrock (ed.), *Handbook of research on teaching* (3rd ed.). New York: Macmillan.

Chrispeels, J. R. (1987, April). The family as an educational resource. *Community Education Journal,* pp. 10-17.

Cohen, M. (1983). Instructional management and social conditions in effective schools. In A. Odden & L. D. Webb (eds.), *School finance and school improvement: Linkages for the 1980's*. Fourth annual yearbook of the American Educational Finance Association. Cambridge, MA: Ballinger.

Comer, J. P. (1980a, March). The education of inner-city children. *Grants Magazine*, 3(1), 20-27.

Comer, J. P. (1980b). *School power: Implications of an intervention project*. New York: The Free Press.

Comer, J. P. (1988a). Educating poor minority children. *Scientific American*, 259(S), 42-48.

Comer, J. P. (1988b, January). Is "parenting" essential to good teaching? *Families and Schools*, pp. 34-39.

Commonwealth of Pennsylvania. (1989, September). *Pennsylvania Department of Education Division of Federal Programs' program improvement and monitoring process*. Harrisburg, PA: Pennsylvania Department of Education.

Council of Chief State School Officers. (1989, November). *Family support education and involvement*. Washington, DC: Author.

Council of Chief State School Officers. (1990, March). *Voices from successful schools*. Washington, DC: Author.

Darling-Hammond, L. (1987). Schools for tomorrow's teachers. *Teachers College Record*, *88*(3), 354-358.

Davis, R. B., & McKnight, C. (1976). Conceptual, heuristic, and algorithmic approaches in mathematics teaching. *Journal of Children's Mathematical Behavior*, *1* (Suppl. 1), 271-286.

Delpit, L. D. (1988). The silenced dialogue: Power and pedagogy in educating other people's children. *Harvard Educational Review*, *58*(3), 280-298.

Dougherty, E. H., & Dougherty, A. (1977). The daily report card: A simplified and flexible package for classroom behavior management. *Psychology in the Schools*, *14*(2), 191-195.

Doyle, W. (1983). Academic work. *Review of Educational Research*, *53*, 159-199.

Edelsky, C. (1986). *Writing in a bilingual program: Habia una vez*. Norwood, NJ: Ablex.

Elmore, R. F., & Associates. (1990). *Restructuring schools: The next generation of educational reform*. San Francisco, CA: Jossey-Bass.

Epstein, J. L. (1984). School policy and parent involvement. *Educational Horizons*, 62, 70-72.

Epstein, J. L., & Becker, J. J. (1982). Teachers' reported practices of parent involvement: Problems and possibilities. *Elementary School Journal*, *83*, 103-113.

Epstein, J. L., & Salinas, K. C. (1990, May). *Promising programs in major academic subjects in the middle grades*. Baltimore, MD: The Johns Hopkins University Center for

Research on Effective Schooling for Disadvantaged Students.

Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (ed.), *Handbook of research on teaching* (3rd ed.). New York: Macmillan.

Erickson, F. (1987, December). Transformation and school success: The politics and culture of educational achievement. *Anthropology & Education Quarterly, 18*(4), 335-356.

Farr, M. (1986). Language, culture, and writing: Sociolinguistic foundations of research on writing. In E. Z. Rothkopf (ed.), *Review of Research in Education* (pp. 195-224). Washington, DC: American Educational Research Association.

Farr, M., & Daniels, H. (1986). *Language diversity and writing instruction.* Urbana, IL: National Council of Teachers of English.

Feather, N. (1982). *Expectations and actions.* Hillsdale, NJ: Erlbaum.

Fordham, S., & Ogbu, S. (1986). Black students' school success: Coping with the "burden of acting white." *The Urban Review, 18*(3), 176-183.

Gardner, H., & Hatch, T. (1989, November). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher, 18*, 4-10.

Gonzales, P. C., & Grubb, M. H. (1989). *Effective language arts programs for Chapter 1 and migrant education students.* Sacramento, CA: California State Department of Education.

Goodlad, J. (1984). *A place called school.* New York: McGraw-Hill.

Goodman, K. (1986). *What's whole in whole language?* Portsmouth, NH: Heinemann.

Griswold, P. A., Cotton, K. J., & Hansen, J. B. (1986). *Effective compensatory education sourcebook* (Vol. 1). Washington, DC: U.S. Government Printing Office.

Guthrie, L. F. (1989). *What schools can do for students at risk.* San Francisco, CA: Far West Educational Research Laboratory.

Hawley, W. D., Rosenholtz, S. J., Goodstein, H., & Hasselbring, T. (1984). Good schools: What research says about improving student achievement. *Peabody Journal of Education, 61*(4), 1-178.

Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms.* Cambridge, England: Cambridge University Press.

Heleen, O. (1990, Spring). Schools reaching out: An introduction. *Equity and Choice, 6*(3), 5-8.

Herman, J., & Yeh, J. (1983). Some effects of parent involvement in schools. *The Urban Review, 15*, 11-17.

Johnson, V. R. (1990, Spring). Schools reaching out: Changing the message to "good news." *Equity and Choice, 6*(3), 20-24.

Jorgenson, G. W. (1977). Relationship of classroom behavior to the accuracy of the match between material difficulty and student ability. *Journal of Educational Psychology*, 69(1), 24-32.

Kennedy, M. M., Birman, B. F., & Demaline, R. E. ((1986, July). *The effectiveness of Chapter 1 services*. (Second interim report from the National Assessment of Chapter 1.) Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Kimbrough, J., & Hill, P. T. (1981). *The aggregate effects of federal education programs*. Santa Monica, CA: Rand Corporation.

Kirby, J. R. (Ed.). (1984). *Cognitive strategies and educational performance*. Orlando, Fl · Academic Press.

Knapp, M. S., & Shields, P. M. (Eds.). (1990, January). *Better schooling for the children of poverty: Alternatives to conventional wisdom* (Vol. 2). Washington, DC: U.S. Department of Education. The following papers are cited in this volume: J. Brophy, Effective schooling for disadvantaged students; W. Doyle, Classroom tasks: The core of learning from teaching; G. Garcia & D. Pearson, Modifying reading instruction to maximize its effectiveness for "disadvantaged" students; H. McCollum, A review of research on effective instructional strategies and classroom management approaches; L. Moll, Social and instructional issues in educating "disadvantaged" students; B. Neufield, Classroom management and instructional strategies for the disadvantaged learner: Some thoughts about the nature of the problem; A. Porter, Good teaching of worthwhile mathematics to disadvantaged students; W. Secada, Selected issues for studying the mathematics education of the disadvantaged; P. Shields, A review of research on school and community influences on effective curriculum and instruction.

Knapp, M. S., & Shields, P. M. (1990, June). Reconceiving academic instruction for the children of poverty. *Phi Delta Kappan*, 753-758.

Knapp, M. S., & Turnbull, B. J. (1990). *Better schooling for the children of poverty: Alternatives to conventional wisdom* (Vol. 1). Washington, DC: U.S. Department of Education.

Langer, J. (1984). Literacy instruction in American schools: Problems and perspectives. *American Journal of Education*, 93, 107-132.

Langer, J., & Applebee, A. (1986). Reading and writing instruction: Toward a theory of teaching and learning. In E. Z. Rothkopf (ed.), *Review of Research in Education* (pp. 171-194). Washington, DC: American Educational Research Association.

Langer, J., & Applebee, A. (1987). *How writing shapes thinking: A study of teaching and learning*. (NCTE Research Report #22) Urbana, IL: National Council of Teachers of English.

Levin, H. M. (1984, Summer). About time for educational reform. *Educational Evaluation and Policy Analysis*, 6(2), 151-163.

Lightfoot, S. L. (1975). Families and schools: Creative conflict or negative dissonance? *Journal of Research and Development in Education*, 9, 34-43.

Ligon, G. D., & Doss, D. A. (1982). *Some lessons we have learned from 6500 hours of classroom observations.* (Pub. 81.56). Austin, TX: Austin Independent School District, Office of Research and Evaluation.

Little, J. W. (1981). *School success and development: The role of staff development in urban desegregated schools. Executive summary.* Washington, DC: National Institute of Education.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19,* 325-340.

Little, J. W. (1990). Conditions of professional development in secondary schools. In M. W. McLaughlin, J. E. Talbert, & N. Bascia (eds.), *The contexts of teaching in secondary schools.* New York: Teachers College Press.

Metz, M. (1978). *Classrooms & corridors.* Berkeley, CA: University of California Press.

Moll, L. C., & Diaz, R. (1987). Teaching writing as communication: The use of ethnographic findings in classroom practice. In D. Bloome (ed.), *Literacy and schooling.* Norwood, NJ: Ablex.

Moore, M. T., & Funkhouser, J. E. (1990, January). *More time to learn: Extended time strategies for Chapter 1 students.* Washington, DC: Decision Resources Corporation.

National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform.* Washington, DC: Government Printing Office.

National Council of Teachers of Mathematics. (1989). *Curriculum and evaluation standards for school mathematics.* Reston, VA: Author.

Nickerson, R. S. (1989). New directions in educational assessment. *Educational Researcher, 18,* 3-7.

Oakes, J. (1986). Tracking, inequality, and the rhetoric of school reform: Why schools don't change. *Journal of Education, 168,* 61-80.

Oakes, J. (1989). What educational indicators? The case for assessing the school context. *Educational Evaluation and Policy Analysis, 11,* 181-199.

Ogbu, J. U. (1987). Variability in minority school performance: A problem in search of an explanation. *Anthopology & Education Quarterly, 18*(4), 312-334.

Palincsar, A. M., & Brown, A. L. (1984). Interactive teaching to promote independent learning from text. *The Reading Teacher, 39*(8), 771-777.

Pearson, P. D., Dole, J., Duffy, G. G., & Roehler, L. R. (in press). Developing expertise in reading comprehension: What should be taught? In S. J. Samuels & A. E. Forstrup (eds.), *What research says to the teacher* (2nd ed.).

Peng, S. S., Owings, J. A., & Fetters, W. B. (1982, August). Effective high schools: What are their attributes? Paper presented at the annual meeting of the American Statistical Association, Cincinnati, OH.

Peterson, P. L. (1988). Teaching for higher-order thinking in mathematics: The challenge

for the next decade. In D. A. Grouws & T. J. Cooney (eds.), *Perspectives on research on effective mathematics teaching*. Reston, VA: National Council of Teachers of Mathematics.

Peterson, P. L., & Janicki, T. C. (1979). Individual characteristics and children's learning in large-group and small-group approaches. *Journal of Educational Psychology, 71*, 677-687.

Peterson, P. L., Janicki, T. C., & Swing, S. R. (1981). Ability x treatment interaction effects on children's learning in large-group and small-group approaches. *American Educational Research Journal, 18*, 453-473.

Peterson, P. L., Wilkinson, L. C., Spinelli, F., & Swing, S. R. (1984). Merging the process-product and the sociolinguistic paradigms: Research on small-group processes. In P. L. Peterson, L. C. Wilkinson, & M. Hallinan (eds.), *The social context of instruction: Group organization and group processes*. Orlando, FL: Academic Press.

Pogrow, S. (1987). *An overview of the techniques used in the HOTS program*. Tucson, AZ: University of Arizona.

Pogrow, S., & Buchanan, B. (1985). Higher-order thinking for compensatory students. *Educational Leadership, 43*, 40-43.

Pressley, M., & Levin, J. R. (eds.). (1983a). *Cognitive strategy research: Psychological foundations*. New York: Springer-Verlag.

Pressley, M., & Levin, J. R. (eds.). (1983b). *Cognitive strategy research: Educational applications*. New York: Springer-Verlag.

Resnick, L. B. (1987). *Education and learning to think*. Washington, DC: National Academy Press.

Rogers, V. (1989). Assessing the curriculum experienced by children. *Phi Delta Kappan, 70*, 714-717.

Rosenholtz, S. J. (1985, May). Effective schools: Interpreting the evidence. *American Journal of Education, 93*(3), 352-389.

Rowen, B. (1990). Commitment and control: Alternative strategies for the organizational design of schools. In C. B. Cazden (ed.), *Review of research in education, 16*. Washington, DC: American Educational Research Association.

Rutter, M. (1983). Effective schools. In L. Shulman & G. Sykes (eds.), *Handbook of teaching and policy* (pp. 3-41). New York: Longman.

Schlecty, P. C. (n.d.). Schools for the 21st century: The conditions for intervention. Louisville, KY: Gheens Professional Development Academy.

Seginor, R. (1983). Parents' educational expectations and children's academic achievements: A literature review. *Merrill Palmer Quarterly, 29*(1), 1-23.

Sheats, D. W., & Dunkleberger, G. E. (1979). A determination of the principal's effect in school-initiated home contacts concerning attendance of elementary school students. *Journal of Educational Research, 72*(6), 310-312.

Sheingold, K. (1989, August). New learning technologies that enhance and expand student-teacher interaction for students at risk. Paper presented at the Summer Institute of the Council of Chief State School Officers, Santa Fe, NM. Cited here with the permission of the Council of Chief State School Officers.

Sizer, T. R. (1984). *Horace's compromise: The dilemma of the American high school.* Boston: Houghton Mifflin.

Slavin, R. E. (1988, September). Synthesis of research on grouping in elementary and secondary schools. *Educational Leadership*, 67-77.

Slavin, R. E., Karweit, N. L., & Madden, N. A. (eds.). (1989). *Effective programs for students at risk.* Needham Heights, MA: Allyn and Bacon. The following chapters are cited in this volume: R. L. Allington & P. Johnston, Coordination, collaboration and consistency: The redesign of compensatory and special education interventions; R. E. Slavin & N. A. Madden, Effective classroom programs for students at risk; R. E. Slavin, N. A. Madden, & N. L. Karweit, Effective programs for students at risk: Conclusions for practice and policy; M. K. Stein, G. Leinhardt, & W. Bickel, Instructional issues for teaching students at risk.

Stedman, L. C. (1987, November). It's time we challenged the effective schools formula. *Phi Delta Kappan*, 215-224.

Swap, S. M. (1990, Spring). Comparing three philosophies of home-school collaboration. *Equity and Choice*, *6*(3), 9-19.

Tharpe, R. (1988, February). 4V + 2K = A formula for minority student success. Presentation at the first Stanford Centennial Conference on Educating Children at Risk, Stanford University School of Education.

U.S. Department of Education and National Dissemination Study Group. (1991). *Educational programs that work: A collection of proven exemplary educational programs and practices.* Seventeenth edition. Longmont, CO: Sopris West Incorporated.

Valencia, S. (1990, January). A portfolio approach to classroom reading assessment: The whys, whats, and hows. *The Reading Teacher*, 338-340.

Walberg, H. J., Bole, R. E., & Waxman, H. C. (1980). School-based family socialization and reading achievement in the inner-city. *Psychology in the Schools*, *17*, 509-514.

Walmsley, S. (1986). Toward an integrated language arts program: The North Warren Project. Unpublished paper. Department of Reading, State University of New York at Albany.

Watson, B., & Konicek, R. (1990, May). Teaching for conceptual change: Confronting children's experience. *Phi Delta Kappan*, *71*(9), 680-685.

Weinstein, C. F., & Mayer, R. F. (1986). The teaching of learning strategies. In M. C. Wittrock (ed.), *Handbook of research on teaching* (3rd ed.). New York: Macmillan.

Zeldin, S., & Bogart, J. (1989). *Perspectives on parent education: Implications from research and an evaluation of New Partnerships for Student Achievement.* Washington, DC: Policy Studies Associates.

Zeldin, S., Rubenstein, M. C., Bogart, J., Tashjian, M. D., & McCollum, H. (1991, October). *Chapter 1 in secondary schools: A report on project design and instruction.* Washington, DC: Policy Studies Associates.

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