DOCUMENT RESUME

ED 353 642 EA 024 556

AUTHOR Gaustad, Joan
TITLE Tutoring for At-Risk Students.
INSTITUTION Oregon School Study Council, Eugene.
PUB DATE Nov 92
NOTE 82p.
AVAILABLE FROM Publication Sales, Oregon School Study Council, University of Oregon, 1787 Agate Street, Eugene, OR 97403 ($6 prepaid, nonmembers; $4.50, members; $2 postage and handling on billed orders).
PUB TYPE Guides - Non-Classroom Use (055)
JOURNAL CIT OSSC Bulletin; v36 n3 Nov 1992

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Academic Achievement; Cross Age Teaching; Elementary Secondary Education; *High Risk Students; *Individual Instruction; *Peer Teaching; Program Implementation; *Tutorial Programs; *Tutoring; *Tutors

ABSTRACT

Traditional large-group instruction is geared toward one type of learning style and often assumes a specific cultural background. Tutoring, as a way to augment traditional instruction and help students with special needs, is examined in this bulletin. Following the introduction, chapter 1 reviews evidence supporting the effectiveness of tutoring and examines the cognitive and social reasons for its superiority over group instruction, particularly for at-risk students. Chapter 2 examines the effectiveness of peer tutoring, with a focus on benefits to each party and potential problems. The components of a successful tutoring program--objectives, resources, and implementation details--are summarized in the third chapter. Chapter 4 describes two first-grade programs that use certified teachers as tutors--the Reading Recovery Program and Success for All. Programs described in chapter 5--structured tutoring, programmed tutorial reading, Project Success, and Help One Student to Succeed (HOSTS)--can be implemented using alternative sources for tutors including paraprofessionals, adult volunteers, and students. The sixth chapter describes three peer and cross-age tutoring programs. The final chapter summarizes factors that school districts should consider in planning and implementing a tutoring program. The appendix provides contact information for programs described in chapters 4-6. (Contains 65 references.) (LMI)

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Joan Gaustad

Oregon School Study Council
November 1992 • Volume 36, Number 3

OSSC BULLETIN

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ISSN 0095-6694
Nonmember price: $6.00
Member price: $4.50
Quantity Discounts:
10-24 copies - 15%
25-49 copies - 20%
50+ copies - 25%

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Preface

One-to-one instruction is the oldest form of teaching and potentially the most effective. The achievement of students receiving individual tutoring surpasses that of students receiving conventional group instruction. Nonetheless, as Barbara A. Wasik and Robert E. Slavin (1990) note, the expense of individual tutoring has traditionally relegated it to "the margins of group instruction."

Tutoring has attracted renewed interest, however, as changing socioeconomic conditions create increasing concern for the future of poorly educated citizens. Evidence suggests that providing tutoring during key periods in the learning process is an investment that may yield substantial long-range benefits. Programs using peers, volunteers, or paraprofessionals as tutors offer schools alternatives that are less expensive than programs using professionals. In addition, peer and cross-age tutoring can produce benefits for tutor as well as tutee.

This Bulletin begins by exploring the reasons for the effectiveness of tutoring, particularly for those students at risk of failure in the regular classroom. It examines representative tutoring programs using adult and student tutors and summarizes key elements that schools and districts should consider during planning and implemention of their own tutoring program.

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Introduction

Over the past several decades, educational research has revealed the inability of conventional, graded group instruction to meet the learning needs of all students. Traditional large-group instruction is geared toward one type of learning style and often assumes a specific cultural background. A teacher with a class of twenty-five to thirty students is unlikely to possess the time or skills required to meet the needs of children whose learning styles or cultural backgrounds diverge from the norm.

Most approaches devised to increase academic success for at-risk students have fallen short of their goal. Although grouping students by ability yields slight gains for high-ability students, it produces losses for those of average and low ability (Paul M. Hollingsworth and Grant V. Harrison 1991). The common practice of retaining low-achieving students is ineffective, and most remedial programs have had disappointingly limited success (Robert E. Slavin and others 1991).

As jobs requiring unskilled labor are replaced by jobs requiring high levels of technical skill and education, the cost to society of allowing slow or problem learners to drop out of school has increased. At the same time, the nation's schools are being confronted with increasing numbers of at-risk children.

Much can be done and is being done to improve large-group instruction to better meet the needs of all children. Examples include promising approaches such as nongraded education and cooperative learning. Tutoring can also play a vital role in helping children with special needs, whether it is used as a pullout program or integrated into classroom instruction. Not only can individual instruction improve students' academic achievement, the one-to-one relationship can provide at-risk children with emotional support and positive role models.

Robert E. Slavin and Nancy A. Madden (1989) define an *at-risk student* as "one who is in danger of failing to complete his or her education with an adequate level of skills." Factors associated with the likelihood of

school failure include a low ranking on the socioeconomic scale, grade retention, poor attendance, and a history of behavior problems. Many schools use eligibility for Chapter 1 or other remedial services as criteria for identifying at-risk students.

It is important to remember that many students with identifiable risk factors, such as low socioeconomic status or non-English-speaking background, are successful in school, and that the majority of dropouts are not in high-risk groups (Joan Gaustad 1991). Children lacking obvious risk factors may be in need of tutoring. As Robert E. Slavin and Nancy A. Madden (1987) state, "The fact that students are not achieving adequately in the early grades, for whatever reason, is the most important diagnostic indication that a student is at risk."

Chapter 1 reviews evidence supporting the effectiveness of tutoring and examines the cognitive and social reasons for its superiority over group instruction, particularly for those students who are at risk of failure in the regular classroom. Chapter 2 examines the effectiveness of peer tutoring. Chapter 3 summarizes the components of a successful tutoring program.

The next three chapters present examples of effective, replicable tutoring programs. Chapter 4 presents programs that use certified teachers as tutors. Programs described in chapter 5 can be implemented using alternative sources for tutors including paraprofessionals, adult volunteers, and students. Chapter 6 concludes by summarizing factors school districts should consider in planning and implementing a tutoring program. An appendix provides contact information for the programs described in chapters 4-6.

Chapter 1

The Effectiveness of Tutoring

In 1980, two University of Chicago doctoral students began separate studies comparing tutoring with different types of group instruction. As the results unfolded, they and their advisor, noted education researcher Benjamin S. Bloom (1984), were "astonished at the consistency of the findings." Ninety percent of tutored students reached levels of achievement attained by only the highest 20 percent of conventionally taught students. The average tutored student performed better than 98 percent of those in the control group.

In 1991, Robert E. Slavin and his colleagues at the Center for Research on Effective Schooling for Disadvantaged Students (CDS) reviewed a wide range of early intervention programs designed to prevent school failure. They found that all forms of tutoring they studied were more effective than any other strategy. "The most effective form of instruction known is one-to-one tutoring by qualified teachers," states a CDS program description (CDS undated).

This chapter explores the reasons why tutoring can be much more effective than group instruction, particularly for at-risk students. Understanding how tutoring works can illuminate the differences among tutoring models. It can also assist with the selection of programs appropriate for particular groups of at-risk students and guide the process of adapting a program to local needs without compromising its effectiveness.

The Components of Successful Instruction

It is helpful to consider the instructional process in general before exploring the specific advantages of tutoring. Joanne Anania (1983) summarizes the elements of successful instruction as described by Bloom.

First, what is to be learned and how the task should be approached must be communicated to the learner. *Cues* are the means used to communi-

cate this information to the student. Cues may be verbal or nonverbal and may be provided by either instructional materials or the teacher. A student cannot properly respond without understanding the cues.

The learner must also be actively engaged in the task. *Participation* is the term Bloom uses for this essential process. Examples of participation include listening to the teacher's explanations, thinking about ways to solve a problem, asking questions, responding to questions asked by the teacher, and actually working on the task such as completing a series of subtraction problems, painting a picture, or discussing a group project with teammates.

Positive reinforcement is any rewarding event that motivates the learner to repeat the behavior that earned the reward. Forms of reinforcement may be praise from teachers and parents, admiration of peers, or tangible rewards such as candy or privileges. The source of reward may also be internal such as pride in accomplishment or the pleasure of discovery. Whether the source is internal or external, there must be some type of incentive to motivate the learner.

Disapproval, criticism, and punishment are examples of negative reinforcement, a less effective, unpredictable motivator. Exposure to primarily negative reinforcement can "disrupt learning and depress cognitive performance," states researcher Norma Feshbach (1976).

Feedback informs the learner about her progress in mastering the task. *Correctives* are adjusted instruction given to the learner to correct identified errors. The learner cannot proceed to more advanced tasks unless basic tasks have been correctly mastered.

Learning and Individual Differences

Cognitive, social, and emotional differences affect an individual's response to instruction. A particular set of cues may not be understood by all students. Each learner requires different amounts of participation, practice, feedback, and correctives to master a skill or task. Events that are rewarding to some may be unrewarding to others, and some students may need more praise and encouragement than others. As a result, it is unlikely that the same type of instruction will be effective for all children.

Cognitive Differences

The National Association for the Education of Young Children (1987) emphasizes the importance of developmental differences in primary-age children. For example, children of the same age are not equal in their ability to grasp abstract concepts. Researchers John Goodlad and Robert Anderson (1987) found that children entering first grade may vary in mental age by up

to four years, and the amount of variation increases in subsequent grades. It is typical for young children to progress at different rates of speed in different areas of achievement, to spurt ahead and hit plateaus rather than moving at a uniform pace.

In recent years, psychological research has emphasized the importance of learning styles in academic achievement. Harvard University's Howard Gardner (1983) theorizes that seven different "intelligences" exist. Western education systems are primarily oriented toward the *linguistic* and *mathematical/logical* intelligences. Children whose primary type of intelligence is one of the other five—*musical, spatial, bodily-kinesthetic, interpersonal,* or *intrapersonal*—are at a disadvantage if instruction is geared only to the first two types.

Emotional Differences

Brain research has shown that the learner's emotional state strongly affects learning. Tension and fear inhibit learning while relaxation, trust, and a sense of security promote it (Betty Shoemaker 1989). Therefore, it is important that the home environment and classroom atmosphere provide a positive emotional experience.

Feshbach found that mothers of problem readers were more critical, interfering, and impatient than mothers of successful readers. In an experiment where children were taught a task by these mothers, they performed poorly in comparison to those taught by mothers of successful readers. "This outcome was produced by an interaction ranging from 8 to 15 minutes in duration," notes Feshbach. "One can only conjecture about the effects of sustained exposure to socialization experiences or teaching styles characterized by intrusiveness, impatience, and negative reinforcement."

Due to learning experiences such as these, some children may be disadvantaged in their approach to school tasks. Learning may also be inhibited by general anxiety related to family conflicts and problems.

Social and Cultural Differences

Feshbach also found that patterns of reinforcement varied according to socioeconomic background. Parents with low socioeconomic status used more negative reinforcement than did parents with middle-socioeconomic status, and African-American parents of low socioeconomic status used the highest proportion of negative reinforcement. Feshbach theorizes that this reflects the presence of more frustration, privation, illness, and general stress in the lives of poor families. Whatever the cause, disadvantaged children may start school with more emotional barriers to learning than their more advantaged classmates.

Different home experiences also affect the understanding of instructional cues. Portland State University Professor Colin Dunkeld observed that children who have great difficulty learning to read often come from homes in which not a single book, newspaper, or pencil can be found. Instructions that make sense to children in whose homes reading is commonplace may mystify children who come from an essentially oral culture. A non-English-language background is another potential cause of misunderstanding.

Personality Differences

Personality differences also affect the learning experience. Outgoing, articulate, or confident children will find it easier to ask questions, volunteer opinions, and request help. Insecure or introverted students may end up having fewer opportunities to participate and receive feedback. In addition, particular topics of study will interest and motivate individual students to different degrees.

Instruction in the Conventional Classroom

What do teachers do when faced with twenty-five to thirty students possessing varied abilities, experience, and patterns of learning? Brophy and Good (Bloom) found that teachers typically direct instruction to students ranking in the top third of the class and give them the most feedback and encouragement while paying the least attention to the bottom third.

This is not necessarily a conscious act, says Bloom:

> Frequently the teacher gets most of the feedback on the clarity of his or her explanations, the effect of reinforcement, and the degree of active involvement in learning from a *small* number of high achieving students. Teachers are often unaware of the fact that they provide more favorable conditions of learning for some students than others. Generally, they are under the impression that all students in their classes are given equal opportunity to learn.

The reality is, however, that students who diverge significantly from that top third are not given an equal opportunity to learn and are less successful in school. Achievement differences become more marked over time. Each time a child misunderstands instructions, doesn't grasp a concept, or can't master a lesson in the time allotted, he starts the following lesson at an even greater disadvantage. A vicious cycle develops. Each successive failure creates an increasingly negative emotional state that interferes with further learning.

As Robert E. Slavin (1986) points out, in a competitive classroom situation in which "success is defined on a relative basis," a slow learner's

progress appears paltry by comparison with that of faster-learning classmates. Not only is this contrast discouraging to slow learners, it appears to distort teachers' perceptions of achievement. Brophy and Good found that even when low achievers gave correct responses, they were praised only half as often as high achievers, and they were criticized for incorrect responses three times as often as high achievers (Anania). It is easy to believe that school can be, as Slavin puts it, "almost constant psychological torture" for some children.

Group instruction need not be this damaging and unfair. Whole-group teaching techniques have been developed to make instruction more effective for a broader range of students. In mastery learning, for example, periodic diagnostic tests are used to identify misunderstandings and confusion, and feedback and corrective instruction are given to students who need it before the teacher proceeds to subsequent lessons. Bloom asserts that mastery learning combined with other group methods can approach, if not match, the effectiveness of tutoring. And in mixed-age grouping, individual differences are used to deliberate advantage.

Nonetheless, classroom teachers are unlikely to be able to meet the needs of all students who have special problems. Whether a child is at risk due to school experiences or other causes, tutoring can accommodate individual needs to a far greater extent than any form of group instruction.

The Advantages of Tutoring

The power of tutoring derives from two factors: its capacity to adapt to the individual learner's cognitive needs, and the emotional benefits of the one-to-one relationship.

Cognitive Benefits of Individualized Instruction

Through tutoring, the elements of instruction can be completely adapted to the learner's pace, learning style, and level of understanding. The tutor can immediately adjust cues if the student's reactions show them to be ineffective and can provide the type of reinforcement each learner finds rewarding. Constant interaction guarantees a high level of participation. Basic misunderstandings are quickly discovered, and feedback and correction are immediate. The tutor can provide exactly the right kind and amount of practice needed, then move on to more difficult material as soon as the student is ready.

Emotional Benefits of the One-to-One Relationship

Tutoring has many emotional benefits for at-risk students. As Slavin points out, the extra attention itself is motivating. Tutoring is free of competition. Individual goals can be set and achieved and progress praised without disheartening comparisons with faster learners. Also, the privacy of one-to-one instruction may be more comfortable for shy or insecure children, who find it easier to risk making mistakes in front of one person than in front of a group.

The learner receives more praise and encouragement in tutoring situations than in group instruction. The tutor has more time to respond to each child than does the classroom teacher, and there is more genuine progress to praise. Research shows that as learners see continued evidence of their success, their belief in their capabilities rises as does their attitude toward learning and their interest in the subjects studied (Anania).

The one-to-one relationship may help fill important psychological needs, for example, for a child from a single-parent family. The power of this special relationship can go far beyond what is experimentally quantifiable. William Gibbons, founder of the Help One Student to Succeed (HOSTS) mentoring program and a former high school dropout, recalls the impact on his own life of one teacher who urged him to return to school. "I worked my butt off to show that I could do it because this teacher had confidence in me."

As Slavin points out, however, merely providing tutoring doesn't guarantee success. Success depends on the skill and training of the tutor and the quality of the instructional materials.

Chapter 2

Peer and Cross-age Tutoring

The cost of tutoring by adult professionals makes it an impractical method of serving every at-risk student. Fortunately, there are less expensive alternatives. Effective tutoring programs using adult volunteers and paraprofessionals have been developed, and research has demonstrated that students can successfully tutor other students. Not only does peer tutoring benefit the tutees, the tutors gain cognitively and socially.

Jiska Cohen (1986) defines *peer tutoring* as "a one-to-one teaching process in which the tutor is of the same general academic status as the tutee." Strictly speaking, peer tutoring occurs when tutor and tutee have the same academic status (that is, both are in the same grade). When the tutor is older than the tutee, *cross-age tutoring* is a more accurate term. However, the term *peer tutoring* is often used to include both types of tutoring, and the definition of tutoring is occasionally stretched to cover the teaching of more than one tutee at a time.

In a frequently cited analysis of sixty-five programs, Peter A. Cohen and others (1982) established that peer tutoring can improve academic performance and attitudes toward the subject studied for both tutors and tutees. The effects were found to be stronger in well-structured programs. Some evidence indicated that tutoring increased the self-esteem of student tutors, an effect supported by many anecdotal reports. Additional evidence of the effectiveness of specific programs will be presented in chapter 6.

Advantages of Peers as Tutors

Children don't have as much knowledge of content or the teaching process as adult teachers. But in tutoring their peers, they actually possess some advantages over adults.

Cognitive Advantages

Because they are cognitively so much closer to their tutees, peer tutors may more easily understand their problems. Allen and Feldman (1976) found that third graders and sixth graders were more accurate than experienced teachers in interpreting nonverbal behavior that indicated whether their peers understood lessons.

Cohen points out that peer tutors may be better equipped to present subject matter in terms understandable to the tutee because their "cognitive framework" is closer to that of the tutees, and because they use the same informal language and gestures. In addition, "the peer seldom has the adult's prejudices against specific students or slow learners which can act as 'self-fulfilling prophecies'."

In fact, cross-age tutors may have a special empathy with younger low achievers, according to Josie Supik (1991), director of the Center for Prevention and Recovery of Dropouts for the Intercultural Development Research Association (IDRA) in San Antonio, Texas. This empathy greatly contributes to their effectiveness. In the Valued Youth Program developed by IDRA, low-achieving Hispanic middle-school students tutor at-risk Hispanic elementary students. Supik said tutors often "pick up on things teachers weren't able to pick up on, because that's where they were, that's who they were years ago, having the same kinds of problems."

Social Advantages

Cohen describes the importance of *modeling* in the learning process. Peer tutors can effectively model study skills such as concentrating on the material, organizing work habits, and asking questions. One factor that increases the influence of modeling is similarity between the model and the learner. An at-risk child may more easily identify with a student relatively close in age, particularly one of the same ethnic or social background, than with an adult teacher. Cohen also notes the importance of peer approval as a reinforcer, especially for older children.

Higher status is the second factor that promotes the effect of modeling. Cross-age tutoring takes advantage of the higher status inherent in the age difference while still retaining considerable similarity. Research has found that even telling a child that another was older increased imitation (Allen).

Theodore Sarbin (1976) contends that the establishment of a warm, relaxed, friendly relationship between tutor and tutee plays a significant role in facilitating learning. The likelihood that friendship will develop between students close in age is an important advantage of peer tutoring. Just having an older, higher-status friend can help enhance a tutee's self-esteem.

Tutees may also reflect the caring way they are treated by their tutors by acting more positively toward younger children. This ripple effect can improve the climate of the classroom and even spread to the tutee's families.

Benefits to the Tutor

At-risk students can benefit from tutoring as well as being tutored. An impressive amount of evidence supports the academic and social benefits of tutoring. Although it may seem intuitively evident that students with high academic achievement would make the most effective tutors, that is not the case. In fact, students with low academic achievement may actually be superior in some ways.

Academic Benefits

Tutors benefit from the time spent reviewing and practicing material with their tutees. At-risk students who are unwilling to spend time reviewing on their own behalf are often willing to do so to help a younger child, improving their own study skills in the process. In fact, tutors have often been found to make more academic progress than their tutees. Educators using the Companion Reading program, in which same-age peers take turns tutoring each other, report that "students pay closer attention in group instruction when they are responsible for helping someone else learn" (Charles E. Sambs and Randy Schenkat 1987).

Tutors may also experience higher cognitive gains from organizing material to teach, a process that "facilitates long-term retention, as well as aiding in the formation of a more comprehensive and integrated understanding" (Cohen). Gains of this sort will vary depending on the nature of the program. For example, tutor training classes in the Valued Youth Program seek to encourage critical and higher-order thinking skills. The classes also guide tutors to think about how students learn and judge which strategies may be effective with their tutees (Intercultural Development Research Association 1991). Other programs provide preplanned tutoring scripts that do not require tutors to organize material or decide between strategies. In such programs, tutors are less likely to improve higher-order cognitive skills.

Social and Emotional Benefits

Simply being named a tutor and identified as capable of helping another student raises status and may increase self-esteem. More importantly, the self-esteem of tutors rises as they see concrete evidence of their competence—improvement on the part of their tutees. Tutoring also pro-

vides opportunities to practice and improve communication skills and work habits

Tutoring may be an at-risk student's first positive experience with the structure of school authority. In the role of teacher, the tutor suddenly acquires a new understanding of his own teachers and insight into himself. "Kids who are usually disruptive in class will immediately see a mirror when they go into the elementary school," related Supik with a chuckle. "They say, 'This kid will not sit still, he won't pay attention to me, he doesn't listen.' And it clicks!" As a result, teachers often see a dramatic improvement in tutors' classroom behavior and attitude toward school.

Knowing they are making a meaningful contribution can be a powerful experience—one that most children rarely have, as Allen notes:

> Unfortunately, in our society children are typically the recipients of help from others, rather than the givers of help.... The feeling of being useful to others is particularly important for adolescents; being caught between childhood and adulthood, they realize that they are not yet useful and needed members of society.

The impact of this experience may be even greater for at-risk students who have often felt like failures.

Along with increased status and self-esteem comes a sense of responsibility. Knowing they are looked up to by younger children can motivate tutors to make major behavior changes. According to Supik, many Valued Youth Program tutors stop skipping classes and behaving disruptively, and about 20 percent even stop associating with former friends who behave that way. "They realize that's not how they want to behave anymore because now they're role models, *they're* mentors. So they have to change *their* behavior, and by doing so, they don't fit in with that old group."

Cardenas and others (1991) point out that teachers often expect and demand less from students who have been labeled as low achievers. Seeing tutors act responsibly and competently may change teachers' perceptions, expectations, and behavior toward these students. Many studies have shown a correlation between high teacher expectations and student achievement. Hopefully, this will eliminate the opposing cycle of low expectations leading to failure.

Potential Pitfalls of Peer and Cross-Age Tutoring

Simply putting two students together does not produce a successful tutoring relationship. Without training, many tutors will resort to damaging practices adults have used with them, such as threats of punishment, scornful put-downs, and attempts to induce guilt. Feshbach found that children four

years of age had already adopted positive or negative reinforcement styles corresponding to those used by their mothers. Peggy Lippitt (1976) notes that younger children "are very inventive in retaliating for such behavior by tattling, teasing, destroying property, and otherwise being a nuisance."

It must be acknowledged, however, that this is not a problem unique to peer and cross-age tutoring; untrained adult volunteers are also likely to use ineffective teaching techniques. With proper training and supervision, both children and adults can learn effective tutorial and communication skills.

Another potential problem is that student tutors may not have fully mastered the material to be taught. This, in addition to inadequate communication skills, may result in the transmission of distorted and inaccurate information. To prevent this, Cohen suggests assessing potential tutors' skills and comprehension before assigning them to tutor. Some programs provide tutors with training to increase their mastery of content and instructional skills.

One drawback of peer tutoring is that children assigned as tutees are, in effect, labeled as inferior to those chosen to be tutors. This perceived low status can be damaging to self-esteem. As a result, says Slavin, students often resist being tutored by peers. Cross-age tutoring is one way to avoid this problem. In the Companion Reading Program, described in chapter 6, all children in a class take turns tutoring and being tutored.

Low Achievers Can Be Good Tutors

Although tutors certainly ought to understand the material they teach, there is no need for them to be excellent students, especially with cross-age tutoring. "A sixth grader operating at a fourth grade level can be an excellent helper for a second grader who is also operating below grade level," asserts Lippitt. After exploring relationships between tutor characteristics and tutoring effectiveness, Robert D. Cloward (1976) concluded that "there is virtually no correlation between the tutor's intellectual credentials and his effectiveness in tutoring."

Lippitt notes that tutors who have struggled may be more patient and understanding than tutors who haven't experienced learning problems. Feshbach found that second-grade male tutors who were successful readers were more critical of tutees with reading problems than were male tutors with reading problems. Tutors with reading problems gave tutees with similar problems comparatively less criticism and more positive reinforcement.

Chapter 3

Components of a Successful Tutoring Program

A variety of tutoring programs share the common aim of helping at-risk students succeed in school. Local conditions will determine what type of program is appropriate. However, certain basic components must be included in any effective program.

Tutors must be obtained and provided with training and instructional materials. Criteria must be developed for selecting tutees, matching them with tutors, and assessing their progress. Similar criteria must be established for tutors if they are the focus of the program. Time and space must be arranged. Other essential elements include providing ongoing support for tutors and staff involved in the program, communicating with parents and the community, and evaluating the success of the program as a whole.

Program Objectives

The design of a tutoring program is dictated by its objectives. What age group is targeted? What subject area is the focus of improvement? Is academic progress the only objective or are improvements in self-esteem and attitude also desired? Are the goals of tutoring to be coordinated with classroom instructional goals? Determining objectives is the first prerequisite to selecting or developing an appropriate program.

Fred C. Niedermeyer (1976) emphasizes that clear, specific, and assessable outcomes should be stated from the beginning. For example, "Tutoring will improve the learner's ability to read" is vague. "The learner will sound out and read any regularly spelled, single syllable word comprised of previously learned letter sounds" is clear, specific, and easy to assess. If desired outcomes are vaguely stated, it will be impossible to determine whether they have been achieved.

According to Cliff Eberhart, Chapter 1 specialist with the Oregon Department of Education, the ultimate objective should be to teach the child how to learn independently. "Helping the child through today's lesson, which is what most tutors do, is all right for today, but it isn't effective over the long haul." Instead, Eberhart supports programs that teach students *metacognitive strategies.* "That's what people mean when they talk about teaching study skills, teaching critical thinking skills. And that is teaching the child how to control his or her own learning. That's great!"

Resources

Practical considerations interact with objectives to determine the form a program will take. Program design is affected by the human, physical, and financial resources available.

Who will do the tutoring? Are there funds to hire professionals or paraprofessionals or to train current staff? Is there a substantial pool of potential volunteers?

Who will administer the program, collect data, and provide tutors with training and supervision? Who will communicate with parents and the community? Are teachers, administrators, and other affected staff committed to supporting the program over the course of time?

What physical facilities are available? Do individual schools include a wide enough age range to permit intraschool cross-age tutoring? Are elementary and secondary schools in close proximity, or is transportation available to bring the tutors to the tutees? Does a program have specific physical requirements, or can it be adapted to a variety of settings? Are new instructional materials needed?

Many aspects of program design depend on the answers to these questions. Financial resources will determine whether a program must be designed around existing human and physical resources.

Details of Implementation

"Good tutoring programs don't just happen; careful and detailed planning is essential," emphasizes Ralph Melaragno (1976). This secion provides an overview of major elements that should be present in a good tutoring program.

Selecting Tutees

Programs use a variety of criteria to select tutees. Examples include Chapter 1 eligibility, scores that fall below a set percentile of achievement in

a particular area, or simply a teacher's judgment that a student would benefit from help. If tutee progress is a program's goal, it is desirable to establish measurements of progress and periodic evaluations of tutees so those who no longer require tutoring can be phased out of the program to make room for new students. Tutee selection and assessment criteria can be less specific if the program's focus is helping tutors.

Recruiting and Screening Tutors

Both student and adult volunteers need incentives to tutor. Students may be motivated by the status associated with being a tutor. Cross-age tutoring programs commonly grant academic credit for training classes and tutoring time, and a few programs even pay tutors. In established programs, word-of-mouth recommendations by previous participants is an effective recruitment tool.

According to Tom Woods, HOSTS program director at East Sutherlin Primary School in Sutherlin, Oregon, "the need to be useful, to be needed by someone" is a strong motivator. Seeing evidence of the tutee's progress may be the most satisfying reward of all.

Many programs have formal or informal mechanisms for screening tutors. Some programs require tutors to meet a certain standard of academic achievement; others look primarily for desired attitudes. The Valued Youth Program, which recruits at-risk students as tutors, accepts students with a history of minor discipline problems but draws the line at criminal behavior.

Lippitt mentions a Michigan program that deliberately recruited a wide variety of students as tutors—peer leaders, underachievers, good students, and those with behavior problems—in order to give alienated students "a chance to work closely with others who have a different outlook."

Matching Tutors and Tutees

Many programs make an effort to pair tutors and tutees of the same gender. Students often prefer this, but several authors report that there is no evidence that tutoring is more effective with same-gender pairs than with opposite-gender pairs.

The greater influence of similar role models suggests a possible advantage in matching by variables such as race and socioeconomic status. However, matching complementary personalities is probably more important. The HOSTS program tries to place tutees with tutors who share the same learning style (HOSTS 1990).

Linda Devin-Sheehan and Vernon L. Allen (1976) note that provision should be made for changing assignments if a pairing doesn't work. They also recommend starting with a small number of participants and adding

more pairs later, particularly if tutors are low achievers likely to need help in several areas. This cautious approach avoids the risk of having to drop students later. At-risk students dropped from a program will tend to experience it as one more failure.

Scheduling

Length and Frequency of Sessions. How long should tutoring sessions be and how often should they occur? Cohen reports that more frequent sessions can be expected to produce greater gains, but there are limits. One study found that tutees who received four hours of tutoring per week did better than those who only received two hours; another study determined that tutoring twice per day did not produce better results than tutoring once per day. According to Barbara A. Wasik and Robert E. Slavin, effective tutoring programs typically have sessions ranging from fifteen to thirty minutes per day.

Devin-Sheehan and Allen suggest taking into account the attention span of tutees and time needed for tutor preparation. Otherwise, since research has not established an ideal frequency or duration for tutoring sessions, they can be scheduled to fit into the normal school schedule.

Location. Tutoring can take place in a variety of locations, depending on the design of the program. Some programs using adult professionals, such as Reading Recovery, require a specific physical setup. Cross-age and adult volunteer tutoring programs usually adapt to whatever space is available. A substantial number of tutoring pairs may be able to work effectively in a large room such as a cafeteria or library. Partitions make tutoring easier by reducing distractions. Peer tutoring in a corner of the tutee's classroom permits easy supervision, but distractions are a potential problem (Allen).

Arranging Tutoring Times. Scheduling is a particular challenge with cross-age tutoring because it requires coordinating the schedules of two sets of students. Offering tutoring as a credit class gives tutors a predictable chunk of time during the school day. This may not be the case when tutors and tutees attend different schools. For example, Diane Harrington (1992) describes the situation in a New York City program:

> The tutoring at P.S. 21...was scheduled for one period, giving the helpers only forty minutes to walk to P.S. 21, work with their students, and walk back. It just wasn't enough time, and they were always late returning. Worse still, the seminar was scheduled during the forty-minute lunch period that followed, so that got cheated, too.

Scheduling tutoring before or after school or on weekends avoids conflict with classes but causes new conflicts with bus schedules and extracurricular activities. Tutors lose enthusiasm when they are required to make

greater sacrifices to participate. School Counselor Cassie Malecha, coordinator of the Willamette High School Peer Tutoring Program in Eugene, Oregon, described such afterschool scheduling as "the kiss of death" for a program. "I'm a firm believer that it needs to be a class, and during class time," she asserted.

Afterschool and weekend tutoring is successful with some programs using adult volunteers. The kind of scheduling that will work simply depends on the needs and commitment of the individuals involved.

Training Tutors

Educators and researchers unanimously agree on the importance of training. Grant V. Harrison (1976) found that untrained student tutors typically "punished, extensively overcued, did not give verbal praise, did not engage in friendly noninstructional conversation, provided feedback before the child made the appropriate response, and made no effort to clarify the task." Niedermeyer reports that "in bursts of enthusiastic initiative, the tutor often will give the learner too much too soon, thus causing failure and frustration. (Parent tutors, in particular, are predisposed to make errors in this direction)."

There are two ways to ensure that tutors use effective techniques: provide carefully structured materials that can be used correctly with minimal training, or train tutors sufficiently so they can make independent decisions.

Extensive training is desirable when tutor progress is the program's goal. If tutee progress is the main objective, tutors can successfully use structured materials after a few hours of training. Not surprisingly, certified teachers given extensive special training are the most effective tutors.

Harrison divides tutoring skills into two main types: skills that are always appropriate regardless of the subject matter (such as clarifying the task, praising the tutee, and avoiding punishment) and skills that must be modified for the subject. For example, "in teaching reading the child can be given the correct answer when he makes an incorrect response, but this procedure is inappropriate for teaching math concepts. If the child completes an equation incorrectly, it serves no useful purpose merely to tell him the correct answer." Recordkeeping skills are also necessary for recording tutee progress.

Practice using tutoring techniques is an essential part of training. Role playing allows prospective tutors to practice tutorial skills and receive feedback before they begin to tutor. In some programs, student tutors visit classrooms to become familiar with the behavior of younger students. Videotaping tutoring sessions is another good way to give tutors feedback (Allen).

Supervising and Supporting Tutors

A good program should supervise tutors and provide them with ongoing support and training. Niedermeyer cites one peer program where "only half the required tutoring actually took place" due to lack of monitoring. Monitoring ensures that tutoring occurs as scheduled and that tutors use effective techniques. Observation, meetings with tutors, and records of tutee performance enable program coordinators to spot problems and make suggestions for improvement. Some programs also require tutors to keep daily logs or diaries.

It is important that tutoring be a positive experience for tutors as well as for tutees. Programs won't retain volunteer tutors who feel frustrated and unsuccessful. Periodic group meetings are an efficient way to keep in touch and make suggestions for handling problems. They also provide important psychological support by providing tutors opportunities to share frustrations and success. The group identity that develops is particularly valuable for at-risk tutors.

"Programs concerned with helping both the tutor and tutee may be twice as efficient in terms of the number of students receiving benefits, but also can be twice as difficult to supervise," warn Devin-Sheehan and Allen. The Valued Youth Program has dealt with this issue by abandoning attempts to objectively assess tutee progress and concentrating its efforts on supporting its tutors.

Gaining the Support of Staff

"Tutoring programs are relatively easy to start," says Allen, "but it is much more difficult to maintain them effectively once the initial enthusiasm has abated. A tutoring program requires a heavy commitment of time and energy from the school community—and especially so if a large program is to sustain its initial momentum."

The amount of time and energy required from school staff will vary depending on the type of program. Nonetheless, support by teachers and administrators is essential if a tutoring program is to succeed over the long haul. Lippitt recommends that potential sources of resistance among staff be acknowledged and openly dealt with before a program is initiated. Less than wholehearted commitment may sabotage a tutoring program.

Teachers have legitimate professional concerns about tutoring programs, as well as insecurities that are difficult to acknowledge. Peer and cross-age tutoring programs, in particular, require time to schedule and organize, and, as Melaragno points out, school staff are rarely given extra rewards or appreciation for extra work. Consciously or unconsciously, some teachers may feel threatened by loss of control in programs using student

tutors: What if tutors misuse their power and hurt their tutees? Will teachers be blamed if the program fails? What if the tutor teaches the child more than the teacher was able to?

Devin-Sheehan and Allen note that teachers may fear the stigmatization of low achievers selected for tutoring. On the other hand, if low achievers are recruited as tutors, teachers may object on the grounds that they would benefit more from being in class.

Teachers who understand and believe in a program's potential to help their children will generally be firm supporters. Providing teachers with staff development and involving them in the decision-making process gives them a sense of ownership and reduces objections. The success of the Reading Recovery program can be partly attributed to its ongoing support and periodic supervision of teachers who have graduated from its year-long training program.

A program coordinator who is a member of the regular school staff will have the advantage of knowing personalities and being able to quickly spot potential problems, according to Devin-Sheehan and Allen. They recommend that a person brought in specifically to coordinate a program find an assistant on the school staff to act as liaison.

Communicating with Parents and Community

According to Devin-Sheehan and Allen, "Perhaps the most common objection heard after a tutoring program actually gets underway is that someone was not informed about it or that some aspect of it was not made clear." They suggest sending letters to parents and holding orientation meetings with teachers. Parents are often concerned about whether or not their child is selected for a program. In other programs, parents may actually be involved in tutoring.

The amount of community involvement varies with the program. In some cases, such as the HOSTS program, community agencies may take responsibility for recruiting, and community members may volunteer as tutors. Even when the community is not significantly involved, maintaining good public relations is a good idea (Allen).

Assessing Student Progress and Evaluating the Program

A good program will frequently assess student progress. This will alert staff about learners who are falling behind and enable them to adjust instruction or change tutors. Eberhart points out the important distinction between assessment of overall achievement, which only reveals how well or poorly a learner is progressing, and *diagnostic* assessment, which specifically

pinpoints problem areas. Robert E. Slavin and Nancy A. Madden (1989) report that virtually all effective programs for at-risk students, including tutoring, frequently assess progress and use the results to adjust instruction to children's individual needs.

Data on individual achievement also help measure the effectiveness of the program as a whole. Surveys of participant satisfaction with a program can be used to augment objective measures of student progress. Devin-Sheehan and Allen note the importance of objective evaluation measures in offsetting perceptions of program success that may be colored by participants' expectations: "Although anecdotal material may be interesting and entertaining, empirical data will provide the more convincing answers."

Conclusion

This chapter reviewed the major elements of effective tutoring programs. The next two chapters will explore the ways nine highly recommended programs utilize these elements.

Not all tutoring programs contain every element, and some components are not relevant to particular approaches. However, it is helpful to keep these elements in mind when considering a program's appropriateness for a specific school or district. Necessary components that are not included in the tutoring package will need to be supplied by local school staff.

Chapter 4

First-Grade Reading Programs Using Certified Teachers

> Students who fail to read adequately by third grade are highly unlikely to ultimately graduate from high school, and are at very high risk for delinquency, early pregnancy, and other problems.... Once students have fallen seriously behind, they are unlikely to ever catch up to their agemates, as the experience of failure introduces problems of poor motivation, self-esteem, and behavior that undermine the effectiveness of even the best remedial or special education approaches.
>
> (Nancy A. Madden and others 1991)

Madden and her colleagues' grim summary of research explains the intense interest of educators and policymakers in early intervention and the willingness of school districts, state legislatures, and other funding sources to support early intervention programs. The two programs described in this chapter—Reading Recovery and Success for All—seek to prevent the need for future remediation by providing at-risk children with professional tutoring in reading during the critical first-grade year. Wasik and Slavin found that the most effective tutoring programs used certified teachers as tutors.

Reading Recovery Program

The Reading Recovery Program was developed by New Zealand educator and psychologist Marie M. Clay, based on observational research she conducted in the mid-1960s. The success of the Reading Recovery pilot program in 1977-78 led to its nationwide adoption in New Zealand in the early 1980s. In 1984-85, Clay and a colleague were invited to The Ohio State University where they trained the first group of educators from the United States (Groom and others 1992).

After pilot programs were successfully implemented in six public schools in Columbus, Ohio, Reading Recovery was adopted by the district as a whole during the 1984-85 school year. The following year state funding supported its implementation in many other Ohio school districts. Since then, Reading Recovery has spread to almost forty states as well as Australia, Canada, and Great Britain, according to Colin Dunkeld, teacher leader trainer for the Reading Recovery Program at Portland State University. Portland State is one of fourteen U.S. universities currently serving as Reading Recovery regional training sites.

Theoretical Basis of Reading Recovery

The aim of Clay's original research, said Dunkeld, was to describe the reading process of successful first-graders. It also "revealed that poor readers develop ineffective strategies that persist and may hinder their reading progress and block further learning" (Judy Koford 1991). The goal of Reading Recovery is to help children master more effective strategies that enable them to become independent readers with "internal self-improving systems" (Groom and others).

According to Dunkeld, Clay's theory "is entirely in agreement with the whole language theorists in this country—but with one key exception." Whole language proponents hold that learning to read is a process of discovery by the child. "But what we find is that many children are not making these discoveries by themselves," said Dunkeld. In Reading Recovery, the teacher plays a vital role in helping at-risk children discover successful strategies.

Dunkeld emphasized that while Reading Recovery ascribes a powerful role to the teacher, it is totally unlike prescriptive phonics-based programs. It is important for children to learn sound-symbol relationships, said Dunkeld, but it is only one of many elements in an extremely complex process:

> No two children are alike, and every child needs very, very careful observation. We spend a lot of time learning to describe, very precisely, what children are doing, and learning to choose the right procedure. You don't do it when the child doesn't need it, and you do when the child does, and that means a sophisticated, knowledgeable teacher. Anything that is prescriptive just obliterates those differences, pays no attention to them.

The Tutoring Process

Students receive thirty minutes of tutoring per day in addition to their regular classroom instruction. Most Reading Recovery teachers work with

four children for half a day and perform other duties, group work, or classroom teaching for the other half of the day.

Lessons incorporate a variety of holistic reading and writing tasks using magnetic alphabet letters, markers, paper, and a chalkboard or dry-erase board (Koford). Eacl. day children reread familiar materials, compose and write sentences or brief stories, and are introduced to a new book. They may be asked to dictate sentences for the teacher to copy onto a strip of paper, cut into words, and return to the child for reassembly. Tutors select reading material suited to the individual child from hundreds of "little books" organized into twenty levels of difficulty.

"We use phonics to some degree," explained Julie Haggerty, coordinator and teacher leader for the Portland Public Schools Reading Recovery Program. "We also question children about the meaning and structure of what they are reading. We question them by asking: Does it sound right? Does it look right? Does it make sense?" Tutors teach some strategies to serve as temporary helps, for example:

> We start out with one-to-one matching when they're reading, because we want that child to look at that word, point to it, and say that word while they're looking at it. So they are pointing to the word. Then when the child is ready, we eliminate the use of pointing.

Students proceed step-by-step to more difficult materials and are discontinued from the program once they can read at the average level in their classroom.

Selecting Tutees and Assessing Their Progress

Reading Recovery selects first graders whose reading achievement is the lowest of their class. The program aims to reach the lowest 20 percent of each class throughout the year if resources are sufficient. Criteria include (1) a diagnostic survey designed by Clay and (2) the professional judgment of classroom teachers.

Children vary in the number of tutoring sessions they require, but a range of fifte. 1 to twenty weeks of tutoring is considered standard (Carol Lyons and Andrea McCarrier, undated). Children who are still unable to read and write at average levels after more than twenty weeks may be referred to another special program, freeing the Reading Recovery teacher to work with another child. "But we keep very, very detailed records," noted Haggerty, "so if that child is turned over to another service, at least we have a wealth of knowledge we can give that person on what that child has done."

This systematic collection and analysis of data is one of the program's most remarkable elements. "For every single kid we work with, we keep reams of data," declared Dunkeld.

> We use these data every day to make decisions. We pore over our data every evening, before we work with children again the next morning. And then, of course, the data are there at the end of the year, to enable us to compute our percentage rates of success and know exactly how many children we've succeeded with, how far they've come when we let them go from the program, and what happened after they came out of the program.

Evidence of Effectiveness

These carefully kept statistics show Reading Recovery programs tend to increase their effectiveness over time as teachers become more experienced using the program's techniques. The success rate for the Ohio programs rose from 69 percent in 1985 to 89 percent in 1990. The success rate for children served by the Reading Recovery program at Portland State University rose from 72 percent in 1989 to 78 percent in 1990. "One site, the Clackamas County site, had a discontinuing rate of 94% in its first year, one of the highest rates in the nation" (Western Reading Recovery Program undated b).

According to Dunkeld, after thirteen years of experience with the program, New Zealand is achieving success with 95 percent of the children it works with—95 percent of the original lowest-scoring 20 percent. This means that only 1 percent of all New Zealand first-graders are not successfully learning to read. The overall success rate for programs in the United States is currently 87 percent.

Wasik and Slavin point out that some Reading Recovery selection practices may exclude the very lowest achievers and that original New Zealand studies overstated success rates by excluding students who left the program without being discontinued. However, they describe "impressive" results of studies in the U.S. that included all students who received at least sixty lessons. In two longitudinal Ohio studies, Reading Recovery students "substantially outperformed control students on almost all measures" at the end of the first implementation year and maintained gains for three years without further intervention.

Many administrators in school districts using the program reported reductions in retention rates and the need for special education and Chapter 1 services. A final bit of evidence supporting the effectiveness of Reading Recovery is its 1987 selection as an exemplary education program by the U.S. Department of Education's National Diffusion Network (NDN).

Teacher Training

Reading Recovery teachers are recruited from experienced, certified teachers already working in a district. Trainees simultaneously enroll in a

year-long, graduate-level course meeting once a week for three hours and begin tutoring the lowest-scoring students in their school. Some trainees whose districts are located far from the nearest regional training site relocate for the training year, and internships are arranged for them in area schools. Other teachers make lengthy commutes via ground transportation and some even fly in for the weekly classes (Western Reading Recovery Program undated a).

More extensive instruction prepares teacher leaders, who are qualified to train other teachers, and *teacher leader trainers*, who are qualified to operate a regional training site.

Through an interactive process involving reading, observation, practice, feedback, and discussion, participants learn to sensitively diagnose reading problems, master effective strategies, and develop judgment about which strategy to use. Class meetings usually begin with observation of two tutoring sessions conducted by different teachers, explained Lin Colwell, Reading Recovery teacher leader for Lincoln County (Oregon) School District. As they observe through a one-way mirror, the teacher leader comments on the process and encourages the teachers to describe what they are seeing, discuss which techniques appear effective, and suggest possible improvements.

After the lessons are over, the two demonstration teachers join the discussion, and the class concludes with the teaching of more procedures and related theory. "Most teachers agree that it is the most challenging program, educationally, that they've ever been in, and a lot of teachers even say it's more challenging than their masters' program," Colwell said.

The complexity of Clay's theory explains the length and difficulty of the training process, according to Dunkeld. "We all want to generalize very, very quickly, but you find that you're not able to generalize; there's just a tremendous amount of detail to be learned." Other descriptions of the reading process appear crude and oversimplified by comparison, said Dunkeld.

Ongoing Support and Supervision

The extent of continuing contact required by the Reading Recovery Program is also unusual, and in Dunkeld's view, is one of the keys to its success. "Once in Reading Recovery, you're there forever," he said with a chuckle. Teachers meet several times each year for continuing development. Teacher leaders monitor teachers they have trained, visiting them several times to observe their lessons and give feedback. Visits become fewer as the years pass, but teachers can still call for assistance when they encounter problems.

Teacher leaders are, in turn, monitored by their teacher leader trainers who meet periodically with their counterparts from the other regional centers.

Dunkeld said this ongoing contact aims to prevent practitioners from unconsciously drifting away from established, research-based strategies. At the same time, results of ongoing research and improved strategies are shared, keeping Reading Recovery "in a continuously dynamic state of growth."

Records of each tutee's progress are collected and sent to the training sites, then forwarded to the National Data Evaluation Center at The Ohio State University. National research results are published on a yearly basis, and an annual research report is prepared at each program and training site.

Western Reading Recovery Program

The Regional Training Site at Portland State University serves as a Reading Recovery resource for the western half of the nation. Its closest neighbors are in Arizona, Texas, and Illinois. In addition to training Oregon teachers, Dunkeld has trained teachers from Washington, California, Idaho, Montana, Alaska, and Hawaii. Portland area schools have benefitted from local placement of out-of-state interns.

"Obviously we encourage applications from Oregon," Dunkeld said. "But Oregon is so depressed from Measure 5 that I've trained more teachers from Washington and California than I have from Oregon. I'm very glad to have done it, but I'm disappointed that there weren't more Oregon people." After the 1992-93 academic year, Dunkeld will have accumulated such a supervision load that he will not have time to teach the following year. The next teacher leader class will be offered in 1994-95.

Portland Public Schools Reading Recovery Program

Portland's Reading Recovery project began in 1987-88 with a pilot study involving four schools in the Franklin/Marshall cluster. After a year of planning, implementation began in fourteen schools in 1990-91 with the help of Chapter 1 funds. A highlight of the year was the April visit of Reading Recovery founder Marie Clay (Koford).

"I think it's probably one of the best things the district has ever invested in, and I think we certainly proved that very at-risk kids can be successful," said Judy Koford, who coordinated the program in its initial year. "The training model is wonderful, something that we wish all teachers had the advantage of going through."

Responses of principals, teachers, and parents of tutored children were overwhelmingly enthusiastic. The main concern of principals was funding. Salaries for Reading Recovery teachers are often paid through Chapter 1 funds. Julie Haggerty, current coordinator and teacher leader, notes that many additional Portland schools have students who could benefit from Reading Recovery, but funding is still an issue in some schools, even though the program has been proved cost-effective.

Startup Requirements

Schools in Oregon can obtain detailed information about startup requirements from the Portland State Regional Training Site, including information on research, program descriptions, and cost-effectiveness. Districts are encouraged to send a decision-making team to the site after studying the basic program information.

Dunkeld notes that a huge district like Portland, whose requirements could keep several teacher leaders busy doing training, is in quite a different position than a small district. Forming a consortium with neighboring districts is a more reasonable option for a small district.

In addition to personnel costs and tuition, startup costs include the purchase of a set of books, costing approximately $1,000, for each teacher. Each training site must have a one-way mirror and a sound system installed at an estimated cost of $3,000. The Ohio State Reading Recovery staff emphasizes that effective implementation depends on extensive support. "It is an intensive, demanding program that requires understanding and long term commitment from teachers, and school and district administrators" (Lyons and McCarrier).

Success for All

Success for All was developed at the Center for Research on Effective Schooling for Disadvantaged Students (CDS), which is part of the Center for Social Organization of Schools (CSOS) at Johns Hopkins University in Baltimore, Maryland.

Success for All combines a number of research-based prevention and early intervention strategies, each of which has been established as effective in improving the success of disadvantaged students, in a comprehensive schoolwide restructuring program. Its goal: nothing less than academic success for every student attending schools in poverty-stricken areas.

Success for All was first implemented in 1987-88 in Abbottston Elementary, an innercity school in Baltimore, Maryland. The following year, four more innercity schools in Baltimore and one school in Philadelphia began implementation, followed by a rural school in Maryland in 1989-90. In early 1992, the program existed in a total of thirty-one schools in twelve states (Madden and others 1992).

Theoretical Basis

"The principal theoretical basis for the Success for All approach is the idea that learning deficits must be prevented in a comprehensive approach," state Madden and her colleagues (1992). The program acknowledges the

dismaying evidence that remedial efforts are largely ineffective once students have fallen seriously behind. It is therefore considered critical to provide at-risk children with high-quality instruction from the start and to intervene immediately if signs of learning difficulties appear. While tutoring is only one element of Success for All, it is an extremely important one, and CDS researchers have compared Success for All to other tutoring programs.

Like Reading Recovery, Success for All provides one-to-one tutoring by certified teachers for first graders who are experiencing reading difficulties. Unlike Reading Recovery, it does not limit its services to first graders nor does it limit the amount of time each student can spend in the program. In its fully implemented form, Success for All provides as much tutoring as necessary to all students who need it. "The typical student who receives any tutoring will receive about a semester of tutoring service, but in principle a student could receive up to three years of daily one-to-one tutoring" (Slavin and others). Success for All also provides high-quality preschool and kindergarten programs, research-based classroom reading instruction in all grades, and family support services that attempt to solve nonacademic problems interfering with children's success in school (Slavin and others). Services provided include investigating truancy and behavior problems, providing parenting education, and ensuring that a child with poor vision receives glasses. To describe the program as "comprehensive" is not an exaggeration.

The Tutoring Process

Tutees receive twenty minutes of tutoring per day in addition to classroom reading instruction. The program's developers describe their tutoring component as similar in many ways to Reading Recovery.

> Like Reading Recovery, the Success for All tutoring model emphasizes learning to read by reading.... In addition, a strong emphasis is placed on teaching comprehension strategies. The tutor's goal is to get the students to read fluently and also to understand what they read. Tutors are trained to explicitly teach metacognitive strategies to help students monitor their comprehension. For example, a tutor will teach a student to stop at the end of each page and ask, "Did I understand what I just read?" (Wasik and Slavin)

Tutoring sessions include writing activities, reading "shared stories" with predictive structure and phonetically regular vocabulary, rereading familiar stories and passages to practice fluency, and occasional drills on letter sounds and blending. Wasik and Slavin emphasize that tutors tailor sessions to fit the individual student based on their ongoing diagnosis of specific problems.

Success for All integrates tutoring with classroom reading instruction. Tutors concentrate on tutee mastery of specific concepts and skills being

taught in group reading instruction. All tutors teach daily reading classes so they are intimately acquainted with the elements of the reading program. It's possible that a child's tutor and reading teacher may be the same person (Wasik and Slavin).

If the tutor and regular reading teacher are different people, they communicate regularly in person and via a tutor/teacher communication form. The reading teacher's notes about problems a student is encountering with the current reading lesson are used to plan the tutoring session.

Tutor Training, Support, and Supervision

Success for All reading tutors are certified teachers with previous experience teaching primary reading, Chapter 1, or special education (Madden and others 1992). Tutors and classroom teachers are provided detailed manuals and two or three days of inservice training focused on the reading program. Tutors receive another day or more of training on assessment and tutoring strategies (Wasik and Slavin).

Tutors are observed and given feedback (Wasik and Slavin), and they may consult the facilitator concerning specific problems (Madden and others 1992). For students who are making inadequate academic progress, tutors make referrals to the family support team, which can investigate factors at home that may be contributing to the problems (Madden and others 1992).

Additional inservice presentations are given during the course of the year by the program facilitator and other staff. Problems may be discussed in informal sessions. "The staff development model used in Success for All emphasizes relatively brief initial training with extensive...followup," state Madden and her colleagues (1992).

Common elements appear in the descriptions of the Reading Recovery and Success for All tutoring process. However, the fact that Reading Recovery requires certified teachers to undergo a full academic year of training, whereas Success for All requires only several days, suggests major differences as well.

Selecting Tutees and Assessing Their Progress

At the beginning of the school year, tutees are selected on the basis of "individually administered informal reading inventories" given to all first graders (Wasik and Slavin). Their progress through the reading program curriculum—in fact, all students' progress—is reassessed every eight weeks.

On the basis of these assessments and teacher judgment, students may rotate in and out of tutoring or be referred for additional services. Placement in classroom reading groups is determined by the same assessments (Madden and others 1992).

Evidence of Effectiveness

Not every school can afford Success for All in its ideal form. CDS researchers have studied and compared the program's effectiveness in high-, moderate-, and low-resource implementation patterns.

In all schools studied, regardless of resource level, reading achievement rose and retention rates and absenteeism dropped by comparison with control schools. Not surprisingly, program effectiveness was strongest in the high-resource schools and weakest in the low-resource schools. Program effectiveness in the moderate-resource schools fell in between (Madden and others 1991).

Interestingly, Madden and her colleagues (1992) point out that for most students, achievement improved almost equally at all three resource levels. The main difference was in the performance of the lowest achievers. "What this implies is that it is possible to significantly raise student achievement in schools serving many disadvantaged students by improving curriculum, instruction, and support services, but to ensure success for *all*, a higher investment may be needed."

Reading improvement for the lowest-achieving 25 percent of Success for All first-graders was comparable to that of students served by Reading Recovery. The authors also assert that while Reading Recovery effects maintained through second and third grade, Success for All effects actually increased each year (Madden and others 1992).

Wasik and Slavin point out that this is not an entirely appropriate comparison. Not only does Success for All include components other than tutoring, "the Reading Recovery data relate to the *lasting* effect of a first-grade intervention, while those for Success for All relate to the *continuing effect* of a continuing intervention." What the comparison does show is "the potential power of a tutoring program that is integrated with a structured reading program."

Chapter 5

Programs Using Paraprofessionals, Adult Volunteers, or Students as Tutors

The programs described in chapter 4 relied on the judgment of highly trained professionals. Unfortunately, cost makes these programs unavailable to many children who would benefit from them.

The programs presented in this chapter take a different approach to the same goal. By using paraprofessionals or volunteers as tutors and providing them with carefully structured materials, a relatively limited amount of training, and supervision by a small number of professionals, these programs make tutoring available to many at-risk students who would not otherwise receive it.

Nonprofessionals using professionally prepared tutoring materials can provide many of the components of successful instruction to a greater degree than group instruction. In the first three programs described in this chapter, instructional content and cues are set in advance; the tutor adapts the instructional pace to the tutee, provides immediate feedback and correctives, and positively reinforces correct answers. Tutors need not be professionals to have the ability to supply warmth and encouragement to a child.

Structured Tutoring

The basic Structured Tutoring model was developed in 1968 by Grant Harrison at Brigham Young University in Provo, Utah.

Harrison was motivated by concern over the increasing use of nonprofessional tutors who were often given inadequate training. Contemporary research had shown "that low-achieving students do not learn consistently unless involved in a highly structured process," and that untrained tutors, however well intentioned, generally used ineffective techniques and did not provide that structure.

Harrison designed structured materials to guide tutors in the use of sound, research-based instructional techniques. These techniques include establishing rapport, giving clear directions, focusing the tutee's attention on task materials, reinforcing correct responses, establishing an appropriate pace, and avoiding punishment. Tutor instructions are extremely detailed. At times, a "script" is even provided for the tutor to follow. The aim was to enable nonprofessional tutors "to create a highly sensitive, personal, and structured learning environment" without extensive training.

Tutor Training and Supervision

The Structured Tutoring package developed in the 1970s included a supervisor's guide that explained how to implement the program and train tutors. The guide also contained diagnostic pretests and posttests, study materials for prospective tutors, sequences of instructional activities and exercises, and forms for recording tutee progress. After prospective tutors read instructions explaining tutoring procedures, the basic tutoring skills were discussed and clarified by the trainer, then practiced in role-playing sessions.

The first project involved the tutoring of first and second graders in reading and arithmetic by uppergrade elementary school students. According to Harrison, tutors this age require considerable supervision and monitoring; however, one adult reading teacher could supervise fifty student tutors per day. One study found that nonprofessionals could train tutors as effectively as professionals.

Evidence of Effectiveness

Evaluation of the original program showed that elementary-age tutors were able to master tutoring skills. Tutees made significant learning gains after six weeks of daily twenty-minute tutoring sessions. Another study found that with the aid of the adult version of the tutoring manual, parents as tutors were "as effective as paid nonprofessionals" (Harrison). Revised versions of Structured Tutoring were later validated as effective by Right to Read and by the U.S. Department of Education's Joint Dissemination and Review Panel (Metra 1992a).

Implementing Structured Tutoring

A variety of reading and math materials are currently available for a wide age range of tutees, including illiterate adults. The materials are designed to be used by "anyone reading on a sixth grade level," including older students, paraprofessionals, parents, or adult volunteers (Metra 1992a). The program can be adapted to a wide variety of situations.

Materials are available by mail. Normally there is little followup, though Metra Publishing staff are willing to provide consultation if questions arise. According to Metra staff, a potential problem with this process is improper implementation by users who don't follow the prescribed instructions. This can reduce the program's effectiveness. "Unfortunately, you can't strong-arm people into following instructions exactly," commented Metra owner Terry Summerhays.

Structured Tutoring is sometimes used as an adjunct to the Companion Reading peer tutoring program, also developed by Harrison. (This program is described in chapter 6.) For example, parents may be asked to cover material the child missed due to illness. Interestingly, another use suggested in the teacher's manual is to "pre-teach" material to at-risk students who typically have trouble keeping up.

> Ideally, their parents or resource teachers should cover the concepts and learning activities with these students one week before you cover them in class. Pre-teaching is much more effective than remedial instruction. You will find that if these students are pre-taught, they will be much more attentive during group instruction. (Metra 1992b)

Programmed Tutorial Reading

Programmed Tutorial Reading (PTR) was developed in 1965 by Douglas G. Ellson at Indiana University. It was first used in the Indianapolis public school system and later adopted in school systems across the country. Davis County School District in Farmingham, Utah, currently serves as the program's national headquarters (Davis County School District undated).

The teaching strategy is based on the principles of programmed instruction. Content is broken down into small steps that students are expected to easily master. Tutees are given immediate feedback and liberally praised for correct responses (Wasik and Slavin).

Tutee Selection and the Tutoring Process

Tutees are selected on the basis of standardized reading tests administered to all first graders, supplemented by the opinions of classroom teachers. Children receive daily fifteen-minute tutoring sessions with the same tutor

for the entire school year. Tutoring may take place in a quiet corner of the classroom or in a separate room, preferably partitioned, containing other tutoring pairs. A tutor typically works with seven children every two hours.

The PTR tutoring process is coordinated with classroom reading instruction using one of six tutoring kits designed for use with the most commonly used basal reading series. Lessons progress through a sequence of sight-reading, comprehension, and word analysis, including phonics elements. Seated next to their tutors, children read from their basal readers or work through practice drills in supplemental texts. Tutors follow along in the accompanying tutor's guide, providing clues if the child is hesitant, praising correct responses, and recording incorrect responses without comment.

Tutor Selection and Training

Tutors are adult paraprofessionals or high school work-study students. The PTR program description stipulates that professionals should not be hired as tutors "because they are more likely to alter the prescribed procedures." Moreover, volunteers should not be used "because it is difficult to control volunteers and to maintain a stable tutoring staff." Due to the perceived importance of a stable tutor-tutee relationship, high school students should be used as tutors only if they can work all year (Davis County School District undated).

The programmed tutoring process is extremely structured. Tutors are instructed to follow the designated procedures without deviation. Tutors select alternative sets of instructions to accommodate different student responses but otherwise make no tutoring decisions.

Aside from willingness to follow instructions exactly, important criteria for selecting tutors are personal warmth, concern for children, and a nonjudgmental attitude. "Instruction in PTR is methodical and repetitive, yet it is conducted in an atmosphere of supportive warmth and interest between the tutor and student," states the program description. "It is essential, therefore, that tutors be both committed to and capable of following the prescribed format and genuinely interested in the children they teach." Tutors receive two-and-a-half days of training before they begin to instruct children (Davis County School District undated).

Staff Support and Supervision

One tutorial supervisor, a part-time project director (.25 FTE), and a secretary are needed for every forty tutors. Tutorial supervisors monitor tutors' activities to ensure that tutoring procedures are exactly followed.

Supervisors also serve as resources when tutors encounter difficulties and may conduct inservice training sessions to help them deal with problems. Experienced, credentialed professionals should be hired as supervisors.

According to Susan Ross, Chapter 1 director for Davis County School District, PTR consultants are unable to provide continuing support or contact after the initial training due to discontinuation of an NDN dissemination grant.

Evidence of Effectiveness

PTR was validated by the JDRP as effective with the lowest-scoring 25 percent of first graders (NDN 1992). At one time, the program was funded by the NDN, but not currently.

Ross enthusiastically supports PTR but acknowledges she lacks accurate information about the success other districts have had after the initial training. Davis County School District administrators are understandably reluctant to pay personnel to monitor a national program year after year. As a result, Ross is able to monitor the program's success only in her own district. Another element that complicates keeping track of the program's success is that staff of other school districts who were trained by Davis County personnel sometimes become "turnkey trainers" and pass the program on to other districts, Ross said.

Implementing Programmed Tutorial Reading

The program brochure available from Davis County School District specifies precisely what is required to implement PTR, including materials, facilities, and numbers and qualifications of necessary personnel. The booklet includes a sheet for calculating estimated startup costs and a chart laying out a time schedule for planning and implementing the program. It emphasizes the importance of communication among project personnel, district administrators, and parents, and the necessity of obtaining the cooperation and support of teachers and principals for the program to succeed.

Ross explained that PTR can often be implemented using existing personnel. For example, she is working with personnel in the Sacramento, California, school district who are considering reassigning instructional aides to work as tutors. "Sometimes we fight teachers at first, because they're losing an assistant," Ross said. "But as soon as they see how it helps kids, we find teachers totally support the effort."

Project Success

Project Success was developed by Ronald F. Smith, current director of special services for North Kitsap School District in Kingston, Washington. It is a direct instruction phonics program, incorporating explicit step-by-step directions, systematic review, demonstration and modeling of new skills, tutor-led practice with feedback and correction, and independent student practice to make new skills firm and automatic (NDN 1992).

Program Description

Project Success actually exists in four alternative versions: a single-student tutoring plan, small- and large-group versions of the program, and a complete tutoring program for multiple tutors and tutees. The program is intended for use with at-risk or learning-disabled children in grades K-6. Tutors may be students in grades 6-12, parents, community volunteers, or paraprofessionals. Lessons are designed to teach tutees to phonetically sound out regular words, visually recognize phonetically irregular words, and increase reading speed and comprehension.

Program materials include a coordinator/supervisor guide that explains how to administer the program, including training and supervising tutors; a teacher's guide that explains how to use the tutoring materials; student instruction books including drills, exercises, stories and "proficiency check" tests; student progress books for daily record-keeping; games; and a cassette tape to teach the instructor the sounds to be taught (Ronald F. Smith undated).

Evidence of Effectiveness

The one-to-one version of the program was validated by the JDRP in 1975. Some data also support the effectiveness of the small-group plan, but there are no data available yet on the effectiveness of the large-group plan (Smith). The program has gone through one major revision since its original validation, according to Smith.

Options for Implementation

Smith suggests three possibilities for implementation: a "do-it-yourself" version of the plan can be ordered by mail (from Edmark Corporation) under the name Sounder; a one- or two-day workshop can be arranged with Smith to expand upon the written instructions; or an application for an adoption grant to pay for materials and training can be obtained by contacting the NDN or the state NDN facilitator.

Two schools in Lebanon, Oregon, purchased the small-group version of Project Success and began using it in fall 1992. Interested parties may contact Green Acres and Queen Anne Elementary Schools for comments on its effectiveness.

Help One Student to Succeed (HOSTS)

Unlike the first three programs in this chapter, the HOSTS Structured Mentoring Program in Language Arts does not consist of a set of instructional materials and detailed instructions for use. It isn't a curriculum, but rather a system for organizing and managing both human and instructional resources.

The History of HOSTS

HOSTS is founded on the potential power of the one-to-one relationship to change the lives of at-risk students. William Gibbons, developer of the program, knows this power from personal experience. He still vividly remembers the day a teacher drove out to the hayfield where he was working just after he dropped out of high school.

"He came across the field to me and put his hand on me, and he said, 'Bill, come back. You've got the intelligence, you can do it, and I'll help you.' If it hadn't been for that teacher, I wouldn't be where I am today. I would have been working in that hay field or working green chain at the lumber mill," Gibbons declared.

The second component of the program grew out of Gibbons's early teaching experiences with disadvantaged students who were typically reading years below grade level. Struggling to motivate his students to read, Gibbons began searching for materials at appropriate levels of difficulty that they would find relevant and personally interesting.

These two principles—the power of the one-to-one interaction and the importance of matching materials to the individual student's interests and learning needs—guided the development of the embryonic HOSTS program.

Over the years, Gibbons gradually accumulated and cross-indexed information on curriculum materials appropriate to specific student needs. He named the program in 1971 and administered it in Vancouver, Washington, schools until 1977 when the program's final essential component came into being: the personal computer. Gibbons left the school district, formed a nonprofit corporation, and began transforming his mental notes, unwieldy stacks of paper, and clumsy index cards into a sophisticated software system with an easily expanded and accessed electronic database.

The HOSTS Reading Program

The HOSTS Reading database is derived from 5,000 titled works such as games, books, manipulatives, and instructional computer software supplied by 142 publishers. The database includes 44,000 learning plan elements (HOSTS undated a and c). With input from classroom teachers, compensatory teachers select from these elements to design customized weekly and long-range lesson plans tailored to each child's reading level, interests, motivation, and learning style (William E. Gibbons 1992, HOSTS undated a). Tutors follow these teacher-prepared lesson plans while working with their tutees.

Individual schools aren't expected to possess every item listed in the database. The software enables teachers to quickly locate appropriate materials among existing school resources and serves as a purchasing guide if the school lacks resource materials for a specific need. Locally created or out-of-print materials in the school's library can be easily added to the database, which is annually updated by HOSTS personnel (HOSTS undated c, HOSTS 1990).

The HOSTS strategy is to begin with activities geared to the student's primary sensory and learning style, build on strengths, then move on to activities that will strengthen weaker areas (HOSTS 1990). Lessons are designed to improve reading, writing, vocabulary, comprehension, study skills, and higher-order thinking and problem-solving skills (Gibbons). A HOSTS Math tutoring program has also been developed.

The Tutoring Process

Tutoring sessions are thirty minutes long and occur at least four days per week. Some schools schedule tutoring five days a week in the same time slot; others use the fifth day for other purposes such as small-group work.

Schools can successfully use many combinations of scheduling and physical facilities. HOSTS has been used as an inclass program and as a modified pullout program, before and after school, on weekends, in storefronts, and with parents in the home. At the other end of the spectrum, said Gibbons, some new Texas schools are being constructed with space specifically allocated for a HOSTS program with tutoring space close to the office and a large, accessible parking lot for volunteers.

Mentor-tutors work at least one day per week for two hours and tutor four students for thirty minutes each. Each child will have a different mentor every day. According to Gibbons, many people objected to the constant change of mentors when HOSTS first started twenty years ago. "But we find it's good to have a different mentor each day, because now there are four people telling that youngster, 'You can do it, you're OK'. Four different,

special friends. What has to be constant are the objectives the child is working on."

This necessary continuity is provided by professionally designed lesson plans and by teachers who oversee the program. Mentors provide the all-important personal attention, warmth, and caring.

Recruiting Mentor-Tutors

HOSTS program guidelines directly address the problem of recruitment. The program package includes suggestions for effective recruiting strategies and a mentor-tutor videotape. During the three-day installation workshop, HOSTS personnel train school staff to "recruit, train, retain, and recognize" mentors (HOSTS undated c).

The purpose of the recruitment strategy is to identify existing human resources and find ways to effectively mobilize them. In districts that already have staff assigned to recruit volunteers, HOSTS personnel work with those staff. If a district doesn't already have a volunteer coordinator, HOSTS personnel investigate the possibility of enlisting community groups to do the job. Chambers of Commerce staff have taken responsibility for tutor recruitment in New Braunfels, Texas, and several other cities.

Civic groups such as Rotary, churches, public and private employers, and nearby military bases are excellent sources of potential tutors. "This problem is a community problem, and the solution belongs with the community," Gibbons emphasized. "Educators have to understand that they're never going to solve the problem themselves."

For example, H. L. Suverkrup Elementary School in Yuma, Arizona, recruited tutors via donated radio and television advertising and notices in the Yuma Super Shopper. Volunteers include many of the area's numerous retirees, employees of the local police and fire departments, and many school district staff ranging from custodians and bus drivers to administrators (HOSTS undated e). Tutees' parents are also encouraged to become tutors.

Adult volunteers are not the sole source of mentor-tutors. Cross-age tutoring is the largest component of the HOSTS program at East Sutherlin Primary School in Sutherlin, Oregon, though adults are also recruited as tutors. When the program started, Program Director Tom Woods posted announcements and presented informational seminars at the junior and senior high schools to recruit student tutors. Word of mouth has been such an effective recruiting tool that he no longer needs to recruit. While the Sutherlin program prefers student tutors to have "reasonable grades," a good attitude is a more important qualification.

In addition, tutees had the idea of advertising HOSTS in the community's annual "Timber Days" parade. The students built a float and handed out pamphlets to spectators during the parade. "It was a little old one

room schoolhouse," Woods explained. "They painted it red, and they had an old potbellied stove in there, a lady dressed as an old-time teacher, and a couple of students—it was really neat. They ended up winning first place for noncommercial float."

Teacher judgment is the main criterion used to match mentor-tutors with students. Attempts are made to match tutors and tutees with similar learning styles to promote empathy.

Tutor Training and Supervision

Tutors receive two to three hours of initial training prior to starting the job. They are also given a mentor-tutor guide containing information on learning styles, descriptions of effective teaching strategies, mentoring tips, and "recipes" (HOSTS 1990). The guide includes examples of how to praise tutee progress, such as:

> Congratulations. You got __ right. You only missed __.
> Your letters are all on the line and evenly spaced.
> Look how you've improved.
> Wow!

According to HOSTS Vice-President for Support Services Sheila Tretter, successful operation of the program relies on the coordinator possessing the knowledge and experience to guide and oversee the tutors. Ideally, the coordinator should be a certified teacher trained by HOSTS personnel.

Sometimes, however, schools try to save money by hiring a lower-paid aide to run the program. "And that's supposed to be the cost-effective way to run the system," Tretter commented wryly. Although there are HOSTS programs run by aides or staff assistants, Tretter clearly considers this a less than ideal choice.

Ongoing Program Support

In addition to the initial three-day installation workshop, HOSTS staff provide each site with "a one-day follow-up inservice" for up to four people, a newsletter, and retraining for up to two people per site if needed due to staff turnover. Additional support includes registration for two people to attend the annual HOSTS National Conference and at least two annual site visits by HOSTS staff to provide technical and educational assistance.

A telephone hotline provides on-call technical support. "They're wonderful people," testified Woods in a telephone interview. "In fact, right now I have the computer wizard waiting on the line, and he's going to show me how to unscramble the mess I made of my HOSTS files!"

Selecting Tutees and Assessing Their Progress

Selection and assessment criteria are as adaptable to local needs and requirements as are other HOSTS components. School personnel may decide to use existing assessment tools or those provided with HOSTS program materials. The HOSTS program can be tailored to meet state requirements. In participating California schools, the "California framework" is used; in Texas, the Texas Assessment of Academic Skills (TAAS).

Evidence of student progress is a strong motivator for mentor-tutors to stay with the program, Gibbons pointed out. Therefore, keeping track of daily progress helps retain tutors, motivate students, and enhance program assessment.

Requirements for Program Implementation

Implementation of HOSTS requires an initial implementation fee plus an annual licensing, system support, and product update fee (HOSTS undated c). Additional personnel aren't usually required, just adjustment of the duties of existing staff. Frequently a school Chapter 1 teacher becomes the HOSTS coordinator. Additionally, an evaluation design must be in place to measure the program's impact. And finally, said Gibbons, "We strongly encourage principals to mentor in the program."

Evidence of Effectiveness

In addition to receiving validation from the National Diffusion Network, the effectiveness of the HOSTS program has been acknowledged by the National Council of Teachers of English Center of Excellence Award and the Texas Reach Award for increasing the achievement of high-risk students. The program was selected as a national model in effective mentoring by the National Center for Dropout Prevention, and as a model program for middle school students by the Center for Research on Effective Schooling for Disadvantaged Students at Johns Hopkins University (HOSTS undated b).

At Hilo Union School in Hilo, Hawaii, average student gains at all grade levels were greater in the first year of the HOSTS program than during the three previous years put together. In Ephrata School District in Ephrata, Washington, 84 percent of HOSTS students followed in a three-year study maintained their reading gains and no longer needed remedial assistance (HOSTS undated b).

HOSTS at East Sutherlin Primary School

The HOSTS program in Sutherlin, Oregon, was implemented during the 1991-92 school year. It targets first-, second-, and third-graders one or

more years below grade-level reading ability. It served seventy-eight to eighty students during the first year.

The student body is economically diverse. According to Woods, unemployment caused by recent setbacks in the timber industry has increased stress on families and children, resulting in higher incidences of divorce and child abuse.

Woods believes that one reason for the program's success is that Sutherlin's junior and senior high schools are located right across the street from East Sutherlin Primary School. Junior and senior high students receive academic credit for tutoring. For third graders, who only work with first graders, tutoring is "more of a status thing," said Woods. The only reason that fourth-, fifth-, and sixth-graders are not used as tutors is that they are located too far away.

"I just feel it's a wonderful program," said Woods. "We have seen gains in ability of one to two years during this last year, and we're excited." The use of cross-age tutoring also gives student tutors opportunities to "pick up on things they may have missed."

Glenfair Elementary School: Ten Years of HOSTS

Glenfair Elementary School (Reynolds School District, Portland, Oregon) has successfully used the HOSTS reading program for ten years. "I know a lot of schools get tutor burnout after a few years and feel they can't find people any more," said Principal Anita Harder. "But the teachers in charge of this program have consistently done a nice job of recruiting." The program serves seventy-five to eighty tutees. The tutor pool includes many senior citizens and college students considering careers in education.

According to Harder, the socioeconomic range of Glenfair's student body is high middle-class to low income with 35 to 40 percent of students on free and reduced lunch. Reynolds School District uses Chapter 1 funds to pay the salaries of teachers overseeing the program.

Kathy Kreiter, assistant to the Reynolds School District director of special education, described the program's effectiveness. Academic gains of Glenfair HOSTS students averaged 20 Normal Curve Equivalent units (NCEs) during the 1991-92 school year. The minimum gain currently set by the state is 2 NCEs. "I can tell you that it's an unqualified success," said Kreiter. "We're behind the program 100 percent."

Chapter 6

Peer and Cross-Age Tutoring Programs

This chapter presents three successful yet very different ways of using students as tutors. The Willamette High School Peer Tutoring Program focuses on helping tutees and follows the traditional route of selecting academically strong students to be tutors. By contrast, the Valued Youth Program recruits at-risk students as tutors, allowing them to reap the well-established academic and social benefits of tutoring. Students in the Companion Reading Program have opportunities to act as both tutor and tutee, thus benefiting from both roles.

Willamette High School Peer Tutoring Program

The tutoring program used at Willamette High School in Eugene, Oregon, originated at a junior high school in Springfield, Oregon. Academically competent eighth- and ninth-grade volunteers who appeared to possess the desired qualities of responsibility, maturity, and "a high tolerance for frustration" were trained to help mainstreamed learning-disabled peers meet the academic demands of junior high school (Haisley and others 1981).

An unusual aspect of this program was that tutoring did not take place as a one-to-one process, outside the classroom or off in a corner. Instead, tutors "sat in" on classes their tutees were taking and assisted them during the course of ongoing classroom activities. The rationale for this was that mainstreamed students had been observed to have difficulty transferring study skills learned in the resource room to the environment of the regular classroom (Haisley and others).

In 1987 Willamette High School Counselor Cassie Malecha adapted the program for use with at-risk high school students, some with learning

disabilities and some who simply needed extra help. Malecha administers the program and trains the tutors.

Tutor Selection

Peer tutoring is listed in the school curriculum guide. Tutors receive academic credit for the training class and their participation as tutors. This listing, word of mouth, and observation of the program in action may serve to recruit potential tutors. However, personal invitation is the main means of recruitment.

Approximately a month before the second semester begins, Malecha asks teachers to recommend students whose academic ability and personal qualities suggest they would be good tutors. Malecha invites these students to an informational meeting where she explains the program, "the up side and the down side, some of the frustrations as well as the personal rewards." Previous tutors also talk about their experiences in the program. Students who are still interested fill out an application explaining why they would like to tutor and what subjects they would feel comfortable tutoring.

Malecha wants tutors to be good students so they will serve as positive role models and will screen out applicants who are not doing well academically. But in fact, she said, it is generally students with good academic skills who are interested in participating.

Tutor Training

Tutors attend a training class for the first six weeks of the second semester, then tutor for the remaining twelve weeks of the term. When they return the following September, they are seasoned veterans ready to help incoming ninth-graders. Some students enjoy it enough to continue tutoring for the rest of their high school career. They can earn up to two elective, graded credits.

Malecha uses the manual written by Chris Tell, one of the original program developers, as the foundation for the training class. Tutors learn to focus the tutee's attention on the task, correct errors immediately, reinforce appropriate behavior, adapt instruction to the tutee's skill level, and break assignments into logical sequences. They also learn to teach effective study skills and build tutee self-confidence and independence (Haisley and others).

Communication and "people skills" are a particularly important part of the training, said Malecha. Tutors use role-playing exercises to practice skills before actually beginning to tutor.

The Tutoring Process

The program originally targeted at-risk ninth graders entering high school. Ninth-graders and learning-disabled students remain a priority, but the focus has gradually broadened to include older students as well.

Tutors sit in on math, English, or science courses in which they are academically strong, generally at the ninth-grade level. The teacher of the course usually assigns the tutor to several students needing extra help. This isn't a rigid assignment, however. Tutors assist different students as the need arises, such as when a student has missed school due to illness. In addition, says Malecha, students voluntarily ask tutors for help.

In some cases, tutors interact with tutees while teachers are lecturing. "The tutor can give them a little jab and say, 'This is something you should be taking notes on'," Malecha explained.

In math and science classes, teachers frequently start the period with a lecture then leave some class time open for students to work. During this open time, teachers may ask tutors to work with students who didn't seem to fully understand the lecture. Tutors may also assist tutees during science labs.

Peer Tutoring and Status

Several researchers note that, for status reasons, students often resist being tutored by a classmate the same age. If a Willamette student resists tutoring, tutors do not press them but simply move on and work with other students. According to Malecha, such resistance is a rare event:

> We did have some resistance in the first year, when kids didn't really understand what was going on. But when they realized that it was really beneficial, students started asking for it: "She's helping him, why can't she help me?" I don't think there's a stigma about having a tutor help you. It's become a normal part of our school.

In fact, said Malecha, resistance tends to be in the other direction. Tutors generally prefer to help younger students because they feel intimidated by older ones.

"But a few have tutored older students, such as seniors who are in danger of not making it," she explained. "And in a math class, where you can have all age levels, a tutor might start out with a ninth-grader, then wind up with a little group that includes a tenth and a twelfth grader. They aren't as nervous about it once they get more comfortable with their tutoring skills."

Ongoing Support and Supervision

Malecha acknowledges that tutors should be provided with ongoing

support and supervision. Unfortunately, her full-time counseling position makes it difficult to squeeze in regular meetings once the initial training class is over. She tries to meet with tutors approximately once per month during the lunch period to give them an opportunity to share their frustrations, and she meets with experienced tutors at the beginning of the school year. However, no support or supervision time is officially scheduled.

Evidence of Effectiveness

A study of the original tutoring program provided objective evidence of effectiveness. Pretests and posttests indicated that tutoring improved the ability of learning-disabled tutees to participate in classroom activities. Daily records of assignments showed that 78 percent of the tutees completed a greater number of assignments, resulting in improved grades. Teachers reported improvements in academic performance, self-confidence, and attitudes of tutees (Haisley and others).

For the current Willamette High School program, however, the only evidence of effectiveness is subjective. Because tutoring occurs in the classroom and any student may ask for help, it is practically impossible to separate the effect of tutoring from other variables. It is also not surprising that Malecha, who is voluntarily running the program on her own time, has not attempted to collect data and systematically evaluate the program's effectiveness.

On the other hand, subjective responses to the program are uniformly positive. The facts that teachers request tutors every year, that tutors come back semester after semester, and that students who observe tutoring occurring in their classes ask to be tutored, suggest that everyone concerned regards the program as a valuable asset to Willamette High School.

Requirements for Program Implementation

The peer-tutoring manual used by Willamette High School staff is currently being revised by original author Tell, who is now director of staff development for the Confederation of Oregon School Administrators (COSA). with the aid of Oregon Department of Education personnel. The manual will be available for purchase in early 1993 from both COSA and the Department of Education.

Tell and Malecha agree that the manual alone provides sufficient information to enable a teacher or counselor to start a peer-tutoring program, though it would be a good idea to also obtain advice from the coordinator of a similar program. The second necessary ingredient is a teacher or counselor willing to teach the training class and supervise the tutors. "If you want it to

be no-cost or low-cost, somebody has to be willing to give up a period of their day," commented Malecha.

The final prerequisite for implementing a program is administrative support. Administrators must be willing to add the training class to the curriculum and give credit for it, and teachers must be willing to work with the tutors in their classes. Malecha credits the success of the Willamette High School program to the enthusiastic support of her principal and of the superintendent of Bethel School District.

> A few teachers may have said, "Well, this will never work," but they were willing to give it a shot because the administrator said, "This is something we want to try." I want to emphasize that administrative support is extremely important.

The Coca-Cola Valued Youth Program

The Coca-Cola Valued Youth Program (VYP) has six principal goals: prevent at-risk students from dropping out, improve their academic skills and their attitudes toward self and school, decrease truancy and disciplinary referrals, and provide support for students by forming school-home-community partnerships. The strategy for achieving these goals centers around making tutors valued members of the school community, giving them the responsibility of tutoring younger students, and paying them for their work as well as giving them academic credit (Cárdenas and others).

The pilot program developed by the Intercultural Development Research Association (IDRA) was tested in five San Antonio, Texas, school districts from 1984 to 1988 with support from Coca-Cola USA. A refined research and demonstration project funded by the U.S. Department of Education's Office of Bilingual Education and Minority Languages Affairs was implemented in two San Antonio districts from September 1988 to May 1990 (Cardenas and others).

As of fall 1992, the program had been implemented in a total of seventeen secondary- and elementary-school clusters in California, Florida, New York, Idaho, and Texas. Five sites are supported by a Coca-Cola Foundation grant and the others by federal, state, foundation, and local sources. Maria Robledo Montecel, executive director of IDRA, says that IDRA provides all training and technical assistance materials and a comprehensive evaluation of all sites.

Recruiting and Screening Tutors

The Coca-Cola Valued Youth Program recruits primarily Hispanic middle school students as tutors. Students who are at-risk by state criteria—

limited English proficiency, reading below grade level, above average absenteeism and disciplinary action rates, no extracurricular activities or long-term goals—are invited to participate if they do not have conflicting class schedules. If they are interested, an information and consent form is sent to their parents.

The monetary aspect of the program is important for several reasons. In addition to making students feel valued and improving their self-esteem, the minimum-wage stipend tutors are paid relieves very real economic pressures. According to Josie Supik, director for the IDRA Center for Prevention and Recovery of Dropouts, Hispanic youths feel a strong obligation to help their families, and the lure of a job is a strong incentive for low-income students to drop out of school. For many students, said Supik, "I think at the beginning the primary motivation [for tutoring] is a paying job."

Neither low grades nor a history of disciplinary problems are impediments to participation. However, Supik said school districts traditionally screen out students with any history of drug use or criminal involvement. These students need other support systems which are beyond the scope of this program.

The Tutoring Program

Tutors are assigned to work with three children in the same elementary class under the supervision of the classroom teacher. Tutoring takes place a minimum of four hours per week Monday through Thursday. The tutoring class is held on Friday during the same class period. Tutors are given one or two weeks of preparation before they first visit the elementary school, said Supik, "so they know what they are expected to do, what their roles and responsibilities are." They also spend two weeks in the classroom observing discipline techniques, classroom management, and use of materials before they actually begin tutoring (Cárdenas).

In many ways, the experience serves as valuable preparation for the working world. Before participating in the program, tutors fill out forms listing previous experience and prepare for and participate in a mock job interview (IDRA 1991). Tutors are treated as adults and accorded the status and responsibility of school district employees. They fill out time cards and are not paid when they miss work. They are expected to abide by the dress code and all other regular employee guidelines of the elementary school and are addressed as Mister or Miss.

Tutors develop close personal relationships with their tutees and a strong sense of obligation toward them. The strong identification tutors have with these children, so like themselves a few short years before, gives them valuable insight into their tutee's problems.

The self-esteem of tutors rises as they see their students improve academically. As one tutor reported with pride, "I've been teaching Jose. His grades are going up. Now he's going to pass. Because I helped him, his grades went up" (Catherine A. Rolzinski 1990). And in the process, they strengthen their own academic skills.

Tutor Training

Tutors study theories of child development and work to improve their reading, writing, and communication skills so they can effectively tutor. However, the primary goal of the training class is to meet the needs of the tutors and improve their self-concept and literacy skills.

Once students begin tutoring, the Friday class increasingly focuses on problems they are currently encountering with their tutees. The teacher uses these concrete situations to challenge students to develop problem-solving skills and higher-order thinking skills. "When tutors are acting on par with the teacher in diagnosing student needs and selecting effective teaching strategies, they work at a level of sophistication which they have rarely, if ever, experienced in school before" (IDRA 1991).

Ongoing Support and Supervision

Support and supervision are provided to ensure that tutoring is "a challenge, but not a frustration or a failure for the tutors" (IDRA 1991). Lesson plans are determined by the teaching coordinator (Rolzinski), and the elementary classroom teacher provides guidance and supervision. In addition to teaching effective tutoring techniques, the teacher of the training class counsels and advises tutors about problems unrelated to tutoring.

Fellow tutors become an important support group—a process Supik likens to "forming a family. They form a very close-knit group, and they're very protective of each other after a while." This group provides the sense of belonging so important to adolescents along with a positive set of shared values. In some cases, the VYP group replaces negative former peer groups such as gangs.

Other Program Components

Several other program components aim to make tutors feel valued and set higher goals for themselves. One important goal is successful completion of high school.

Field trips expose students to cultural and economic opportunities in the community. It is hoped that visits to professional settings will help students make connections between what they are learning in school and

what is required for particular careers. Tutors and tutees take some trips together, and parents are also invited to participate.

The program also exposes participants to positive *role models*. Successful Hispanic adults who graduated from the same school district are invited to address the tutors on the topic of careers. In addition to professionals such as doctors, lawyers, scientists, artists, singers, and business executives, parents of VYP tutors are invited to speak "to recognize the contributions they make to the community and to emphasize the dignity of families" (IDRA 1991).

Student recognition is provided in many forms throughout the year. Students are honored for their efforts and presented with certificates of appreciation at an end-of-the-year event. They are recognized by their teachers, their families, and their tutees.

Selecting Tutees and Assessing Their Progress

The Coca-Cola Valued Youth Program currently serves tutees in grades K-3, plus a few fourth- and fifth-graders. There must be at least a four-year age span between tutors and tutees to ensure success. Participating elementary teachers use their professional judgment to select tutees. Teachers provide the teacher coordinator with information about areas the children need help in and the preferred language of instruction. The coordinator uses this information to assign tutors.

IDRA researchers originally wanted to objectively assess tutees' improvement, but, according to Supik, confounding variables made this impossible. In the first place, testing of young children tends to yield unreliable results. Second, it was difficult to compare tutees' progress to that of a control group because tutors sometimes worked with children in their assigned classrooms who were not selected as tutor program participants.

"For instance, the teacher might say to the tutor, 'You know, you're wonderful, and would you please read this story to the class?' And so the tutor would read to the entire class." Such expressions of confidence make the tutor feel all the more valued and benefit additional children. Attempting to always limit tutors' interactions to assigned tutees was both unrealistic and undesirable.

Instead, researchers relied on subjective measures to assess the program's impact on tutees: before and after surveys of tutee's teachers and their own independent observations of tutee progress. Teachers reported noticing improvement in tutees' self-esteem and ability to interact with other children within the classroom as well as academic gains.

Evidence of Effectiveness

Evaluation of the federally funded program in 1988-90 yielded the following results. The 101 tutors had significantly higher reading grades and scored higher on scales measuring self-concept and attitude toward school than did comparison students. The tutors also had fewer disciplinary action referrals. "First year tutors also had significantly higher grade averages in mathematics and English than the comparison group. Second year tutors had higher reading achievement test scores" (Josie Supik 1991).

Evaluation of an earlier program noted improved attendance and improved relations with parents and siblings, a reduced dropout rate, improvement in English and mathematics, and better attitudes toward school (Rolzinski).

Student comments provide insight into the reasons for these changes. For example, one reason tutors' attendance improved was that their absence disappointed their tutees. "I don't miss too many days because the students ask me where I've been and tell me that they miss me," said one tutor. "Every time I'm absent, like last week, they asked me, 'Where were you?'" (Rolzinski).

Knowing they were role models for younger children had a powerful effect. One student, a self-described former "heavy metal dude" who now wants to finish high school, said he told his tutees "to keep on going and not drop out.... I'm an example to them" (Cardenas).

According to Supik, one effect the program planners hadn't anticipated was that tutors learned parenting skills. "It's something we weren't expecting, but it makes sense. They are patient, they are compassionate, they are caring with the little ones. Put together the things that they tell us in their journals and you say, 'That's what a parent is'."

Many tutors took these new skills home, improving the quality of life for their families. For example, they spent more time with their siblings and helped them do their homework, which they hadn't done before. "We had one tutor who was helping tutor her mother, who was studying for her GED exam," related Supik.

The program was approved as an exemplary program by the Program Effectiveness Panel of the National Diffusion Network in 1991. In January 1992, it was recognized as a model dropout prevention program by the U.S. Department of Education's Office of Bilingual Education and Minority Languages Affairs (IDRA undated).

Requirements for Program Implementation

Cardenas and his colleagues note that because no two schools are exactly alike, replication of any program requires adjustments in either the

project design or the school organization. Research has shown that attempts to replicate programs exactly, without attention to the needs of the users or the philosophy and unique characteristics of the site, "can easily result in 'non-implementation'."

> On the other hand, if the Valued Youth Program is modified intensely in order to meet the school's own needs and the school loses sight of the program's basic tenets, the result is "co-adaptation," an eventual breakdown of the program without any noticeable effect on the at-risk student.

While it encourages schools to make adjustments, IDRA has identified the elements critical to the success of the program that must be retained. These include a minimum age and grade difference of four years between tutors and tutees, a minimum of thirty weekly tutoring classes during the course of the school year, provision of a stipend for tutors, a flexible curriculum based on tutors' academic and tutoring needs, and a project staff committed to the success of the program (NDN). A Hispanic student body is certainly not a prerequisite, though the original program was developed with Hispanic students in mind.

Two Oregon school districts currently plan to use the Valued Youth Program. Leigh Wilcox, director of instruction for the Portland School District's Franklin/Marshall Cluster, confirmed that the 1992-93 school year will be the implementation year for the Portland site, beginning in late October with training for principals and other staff. Students in grades 6-8 from Lane Middle School will tutor K-5 students at Woodmere Elementary School.

The Woodburn School District plans to begin implementation in 1993 at French Prairie Middle School where teacher Janey Kupferman has been using a form of cross-age tutoring since the 1991-92 school year. The Woodburn program will target at-risk eighth-grade students.

Companion Reading Program

The Companion Reading Program was developed in 1977 (Metra undated b) by Grant Harrison, professor of instructional science at Brigham Young University. Harrison created Companion Reading in response to practical problems that undermined the success of earlier tutoring programs, including his Structured Tutoring (described in chapter 5).

"Cross-age tutoring never became as popular as I thought it would because of the logistical problems," Harrison explained. "Even through the data were very positive, many schools just would not be bothered with cross-age tutoring." Over the years Harrison saw other effective tutoring approaches implemented in the seventies also fall into disuse. Programs using

paid adult tutors were typically discontinued when funding became scarce, and many schools displayed a reluctance to utilize volunteers.

Harrison therefore set out to design a tutoring scheme that required neither the expense of hiring additional personnel nor the effort of coordinating and supervising volunteer and cross-age tutoring programs. The result, the Companion Reading program, is self-contained and can be used with equal effectiveness within a single classroom or throughout a district. To date, it has been successfully used in Arkansas, California, Kansas, Minnesota, and Utah (Metra undated d).

An Integrated Approach

Companion Reading cannot be accurately described as a tutoring program. Rather, it is an instructional system in which tutoring is one of a number of essential research-based components designed to function in an interrelated fashion (Metra 1992b). The program, available for levels K-3 and higher, can be used alone or as a supplement to a basal or literature-based program (Metra 1992a).

Companion Reading incorporates the teaching of phonics and other reading subskills into an overall approach consistent with whole-language teaching. Students are assigned to read many books, mostly of their own choice and preferably books they find easy to read. The assumption is that students will benefit more from the practice of enjoyable reading than from struggling through a smaller number of difficult books (Metra 1992b).

Reading exercises and worksheets provide focused practice on specific subskills such as vocabulary and punctuation. The aim is for students to overlearn basic subskills so they become automatic. Daily activities include writing stories, responding to reading material, writing reports and summaries, engaging in dialogue, and answering test questions. Daily checks assess student comprehension of lessons and reveal where extra help is needed (Metra 1992b).

Companion Reading avoids ability grouping and its negative effects, . which have been clearly established by research (Hollingsworth and Harrison). Instead, Companion Reading balances whole-class instruction with individualized instruction in the form of peer-tutoring exercises. The daily peer-tutoring sessions give teachers the opportunity to work with students who need individual help beyond what is provided by the Companion exercises (Metra 1992b).

Finally, "share sheets" are sent home at the end of each unit. Parents are asked to listen to their child read the sheet and sign it to acknowledge that the child has done so. This provides children with additional practice as well as involving parents in their children's education.

The Tutoring Process

The teacher spends time during the first few weeks of the school year familiarizing the students with basic tutoring skills. Under the supervision of the teacher, each reading period students complete three structured tutoring exercises with a partner. Taking turns as tutor and tutee, they review and test each other's mastery of the skills and concepts just taught in group instruction.

Children are assigned to work with a variety of partners over the course of the year. Teachers are given latitude assigning partners. For example, the teacher's manual suggests matching students of commensurate ability during the second of the three Companion Study activities; "smarter" students are not assigned to tutor "less capable" students (Metra 1992b).

Peer Tutoring and Self-Esteem

According to Harrison, the alternation of roles in the Companion Reading Program is quite unusual in peer tutoring. Typically, as in the Willamette High School Peer Tutoring Program, students identified as more capable are assigned to tutor students identified as less capable. While in the process of developing the Companion Reading Program for first-graders, Harrison began to wonder about the effects of this type of labeling on students' self-esteem.

"Just on a hunch, I said, 'OK, let's have the children alternate in the roles of teacher and learner'," Harrison explained. "Every day we had them assume the role of the teacher and the learner, and they were trained in both roles. Then, all of a sudden, we found that the children became very concerned about who was first each day."

The procedures were changed to specify that each child should take the role of tutor first on alternate days. "And you can't believe what the manipulation of that variable did for the self-esteem of the children!" Harrison related with a chuckle. "You would be *amazed* at how important that was to them." This carefully controlled alternation of tutor and tutee roles was retained as an essential element of Companion Study.

Evidence of Effectiveness

Both objective and anecdotal evidence testify to the effectiveness of the Companion Reading Program, not just with at-risk students but with all students. Interestingly, students scoring in the highest and lowest quartiles appear to benefit from the program even more than the students in the middle two quartiles.

In a comprehensive review of research literature, Slavin and Madden cite Companion Reading as an effective program for at-risk students, listing it as a cooperative learning program. The program was also validated as effective by the JDRP (Beverly A. Stofferahn 1988).

The results of an Arkansas pilot study completed in 1980 led to the adoption of first-grade Companion Reading in about one-third of all Arkansas school districts by 1990. When the study began, the average reading score for first graders in the Russelville School District was 42 percent and only 21 percent for students receiving free or reduced lunch, compared to the national average score of 50 percent. Those average scores jumped to 69 and 65 percent, respectively, in just one year. One teacher reported the average reading score of students in her class climbed from 54 percent to 94.5 percent after seven years of using the program (Carri P. Jenkins 1990).

Several studies conducted in Minnesota school districts—Elk River in 1985-87 (Sharon K. Kalmoe 1989), Winona in 1985-86 (Hollingsworth and Harrison), and Faribault in 1987-88 (Stofferahn)—also obtained positive results. In general, students at all ability levels did better with Companion Reading than with other reading programs.

The Winona study compared forty first-graders assigned to the Companion Reading Program with an equal number taught in a control group that used basal readers and traditional ablity grouping. Pre- and post-tests showed that after one year of instruction children of all ability levels assigned to the Companion Reading Program did significantly better on Woodcock and SRA reading tests than did those in the control group. The oral reading rate of high ability students taught with Companion Reading was almost double the rate of their basal-taught counterparts, and the oral reading rate of at-risk students taught with Companion Reading was more than double that of basal-taught at-risk students (Hollingsworth and Harrison). Results of the Faribault pilot program were even stronger (Stofferahn).

A final note: Harrison, developer of Structured Tutoring and Companion Reading, and Summerhays, marketer of both programs, emphatically agree that Companion Reading is much more effective than the earlier program.

Companion Reading in Faribault, Minnesota

Faribault is a community of approximately 17,000 people not far from the Minneapolis-St. Paul metropolitan area. The school district serves a very diverse student population, according to Beverly Stofferahn, director of curriculum and instruction for Faribault Public Schools. Students include the children of professionals, government employees, and transient, unskilled workers hired by a turkey-processing plant and several other minimum-wage

employers. "These transient families often bring us at-risk children," said Stofferahn. "We have more than our share of free and reduced lunches."

The district has been extremely pleased with the success of the Companion Reading Program. "For the most part, the program has been exceedingly successful with our at-risk students. We have some very dedicated teachers who I think would rebel if we asked to take Companion Reading away," she said.

The results of the pilot program immediately convinced the district to adopt Companion Reading in all its schools, said Stofferahn. Originally a few teachers were reluctant to consider change. "But when we went over the preliminary report with them and showed them those data, it just took any argument away. They said, '*Good heavens!* If it's making that kind of change, and if it's that good for the kids, we'd better buy into it'."

In addition to being pleased with the improved test scores, Stofferahn has been "absolutely thrilled" by the way the Companion Reading Program has reduced competition and created a supportive classroom environment. "The kids care about each other not only as people but as learners," she said. "They really enjoy working with each other, and they don't have a conception of, 'I'm smarter than you, or you're smarter than me', based upon the old reading groups."

Responses to parent surveys corroborate Stofferahn's observations. One parent wrote, "The children seemed much more accepting of their peers and classmates, and I've heard less derogatory remarks about classmates." Another reported, "Our daughter really enjoyed the chance to work with a companion. She'd tell us of so and so's progress and feel proud she had a part in that progress" (Stofferahn 1988).

One school in the district recently experienced an influx of students with severe family problems, and for the first time, the Companion Reading Program has been less successful. The district is considering alternative or supplemental programs that might help this group of particularly at-risk students.

Requirements for Program Implementation

Companion Reading Program materials are available by mail from Metra Publishing. According to Terry Summerhays, Metra's owner, the information is complete enough for a certified teacher to be able to successfully implement the program without assistance. Nonetheless, Metra does some training about 90 percent of the time. Regional Metra representatives with education backgrounds are based in Arizona, Arkansas, Florida, and Utah and serve as consultants to interested school districts. Metra will also make gratis presentations to interested districts.

Initial training takes about three hours, said Summerhays. Metra may or may not charge for consultation, depending on the circumstances, and any charges will be minimal. Instead of going to Metra, some districts, including Faribault's, arranged for training from personnel of nearby districts that had already adopted the Companion Reading Program.

The company does not provide extensive followup support, though program users are kept apprised by mail concerning program updates and new materials, and consultants are available to answer questions via phone.

Chapter 7

Factors to Consider Before Selecting a Tutoring Program

Educators must consider many factors before selecting a tutoring program for their school or district. The obvious factors of cost and effectiveness are mediated by more complex elements, including a close "fit" between the program's design and local needs and the availability of resources required for program implementation.

Program Effectiveness

Nearly all the programs described in this Bulletin have been validated as effective by the National Diffusion Network or Joint Dissemination Review Panel. However, ascertaining comparative effectiveness can be a difficult task. The NDN does not provide evidence for a program's effectiveness but refers interested parties to the project's developers.

Comparing Apples, Oranges, and NCEs

Programs report their effectiveness in different ways, using a confusing array of statistics. For example, the average gains of all students reported by one program can't be compared with the percentage of students who reached an average level of achievement reported by another. An average can be strongly affected by small numbers of students with extreme scores and does not reveal how many students did extremely well or poorly under a program.

Some standard types of assessment, such as the Woodcock Reading Mastery Tests, recur frequently in program descriptions; these scores can be compared (Stofferahn 1988). Another frequently used unit of measure is the

Normal Curve Equivalent (NCE), also used to set Chapter 1 goals. As Kreiter explained, 1 NCE represents one year of normal progress.

Other measures recur infrequently, and some programs use individually developed measures. For example, Reading Recovery uses its own unique set of diagnostic tests and its own vocabulary for describing student progress. Under these circumstances, a study such as the one done by Wasik and Slavin that directly compared the effectiveness of several tutoring programs using the same unit of measurement, is a welcome find.

Anecdotal Reports

Program developers and marketers are, not unexpectedly, enthusiastic about the effectiveness of their programs. Enthusiastic reports from teachers and administrators who actively use a program are more convincing, especially if they have used it for a long time. Visits to observe programs in action would be the ideal supplement to written information.

Niedermeyer advises: "It is important to look for empirical data regarding the development of tutorial systems. Too often, developers and publishers rely on a few carefully chosen testimonials to substantiate the credibility of a system." While this is excellent advice, I also consider personal testimonials from users an important validation of written

The National Diffusion Network: Spreading the Word About Effective Programs

Since its inception in 1974, the National Diffusion Network (NDN) has been disseminating information about effective, replicable, and cost-effective educational programs.

Before a program is accepted by the network, its developer, typically a local school district or educational research organization, must submit objective evidence of its effectiveness to the Department of Education's Program Effectiveness Panel (PEP). If a majority of panel members agrees, the PEP certifies it as an "exemplary program" and assigns it a validation date. Programs reviewed prior to 1987 were approved by the PEP's predecessor, the Joint Dissemination and Review Panel (JDRP).

Developers of validated programs are eligible to apply for funds to subsidize national distribution. Programs must pass even more stringent tests to be funded as an NDN "Developer Demonstrator" project. The NDN also funds state facilitators to assist schools and institutions to define their problems, help determine which NDN programs might meet their needs, and assist with the adoption process.

John Nelson, special projects coordinator for the nonprofit Columbia Education Center in Portland, serves as NDN facilitator for the state of Oregon. Adopting a network program avoids any expense for program development, Nelson explained. "The programs are there. What you're buying is consultant time for people to come and do training. The NDN doesn't just sell you a program and say 'use it'; every program listed has a training component."

Nelson also pointed out that not all validated programs receive federal funding. Unfunded programs may still be excellent sources of information. Between 80 and 100 programs are funded for dissemination each year out of a total of 250 to 300 currently validated programs. These are selected based on current areas of interest and need in the schools. In addition, some developers of validated programs arrange for a commercial education publisher to distribute their program rather than applying for NDN funding.

A complete listing of current programs is available in *Educational Programs That Work: The Catalogue of the National Diffusion Network.*

data. Whatever the statistical evidence for a program's effectiveness, I found it disquieting when ardent proponents of a program could not provide names of any schools currently using it, and when calls to former purchasers could not unearth any school staff who remembered the program.

Maintaining Effectiveness

Program effectiveness can be eroded if users gradually drift away from correct use of recommended procedures. In some cases, as with HOSTS and Reading Recovery, ongoing evaluation is an integral part of program design, and program staff maintain contact with users to guard against this kind of drift. But less expensive programs are vulnerable to misuse. Educators who obtain programs through the mail should design their own evaluation component if one is lacking.

Unfortunately, systematic assessment is expensive in terms of staff time. What is a school to do if funds can barely be stretched to purchase an inexpensive program, and assessment seems an unaffordable luxury? What if a choice must be made between tutoring without evaluation and no tutoring? If a program has been carefully designed and tested by others, isn't it a reasonable compromise to use it and rely on the subjective impressions of teachers, administrators, and students to confirm its effectiveness? Educators and policy-makers must use their own judgment in answering these difficult questions.

Appropriateness for Local Needs

A program may be certified as effective, but it is important to ascertain whether it is effective for specific local needs.

Who Is At-Risk?

Which program is chosen depends on the number and characteristics of at-risk students in a school or district. The fact that one Reading Recovery teacher can provide intensive help to only four students at a time while the Companion Reading Program simultaneously affects entire classes might influence a district with a large percentage of at-risk students to choose the latter program.

Another issue is the nature and severity of the risk factors affecting targeted students. For example, the intensive, multipronged approach of Success for All would be overkill in a moderate- to high-income district where variations from standard pace and learning style are the main problems. Conversely, a program modeled on the Willamette High School Peer

Tutoring Program might be woefully inadequate in an innercity school where many students have severe, multiple risk factors and problems are deeply established by the ninth grade.

The age of students needing help is also important. An intensive early intervention program like Reading Recovery would seem an ideal choice for a community like Faribault, Minnesota, which is facing a sudden influx of young children with unusually severe problems. For a district with at-risk students of all ages, the Valued Youth Program has the advantage of simultaneously providing benefits to older and younger students.

Curriculum and Educational Philosophy

The compatibility between a tutoring program and a district's curriculum and educational philosophy is another issue. Programmed Tutorial Reading would be a convenient choice for a district that already uses one of the basal series for which it is designed. Koford cites the alignment of Reading Recovery with Portland's "newly adopted literature-based philosophy of teaching language arts" as a key factor in the district's initial interest in the program. According to Summerhays, the Companion Reading approach can be effectively used with either a whole-language or a basal program, but some basal-oriented districts are reluctant to order the many additional reading books the program requires.

Other tutoring programs are designed to operate independently of classroom instruction or can be adapted to different types of content. The design of the Willamette High School Peer Tutoring program and the Valued Youth Program are not dependent on specific curricula, while the HOSTS program uses whatever curricular materials the school already possesses. At the other end of the spectrum, Success for All requires the use of its own complete curriculum.

Availability of Resources

The immediate, upfront cost of a tutoring program is undeniably important, but planners must also consider hidden and long-range costs such as staff time.

Human Resources

Human resources are just as important as financial resources in determining a program's affordability. At first glance, it might seem cheaper to have local staff develop a program tailored exactly to school or district needs. But according to Oregon NDN facilitator John Nelson, developing a program

from scratch is far more expensive and inefficient than replicating and adapting an existing effective program, once the cost of staff time is taken into account. "You're paying too much, and the people end up feeling overburdened," he said.

Similarly, when considering the use of volunteer tutors, staff time required for recruiting, coordinating, and supervising them must be balanced against the cost of hiring paid tutors.

Sometimes school staff will generously donate time to support a program in which they strongly believe. While this may seem like a bargain for the school district, it may be a prescription for teacher burnout. Staff support for any program, no matter how worthwhile, eventually erodes when people must contribute extra, unpaid hours year after year. According to Oregon Department of Education Specialist Shirley Gidley, this problem has contributed to the downfall of other programs in the past (Joan Gaustad 1992).

Finally, Melaragno urges administrators to express appreciation of staff efforts. Such appreciation can make a major contribution to the successful maintenance of a tutoring program (Melaragno).

Redistributing Existing Resources

Redistributing existing human and financial resources may provide the means to implement a tutoring program. Examples include reassigning instructional aides as Programmed Tutorial Reading tutors, or assigning a school's Chapter 1 teacher to coordinate a HOSTS Reading program.

Many schools use Chapter 1 funds to support tutoring programs. Chapter 1 concentration grants have enabled some schools in high-poverty areas to fully implement Success for All (Madden and others 1992). However, Woods points out that using Chapter 1 funding has some disadvantages. The fact that the Sutherlin HOSTS program is directly funded by the district enables the school to avoid paperwork and to "reach certain targets that we want to reach, that Chapter 1 would prohibit us from reaching."

Cost-Effectiveness

An analysis of costs and benefits may reveal that, over time, an initially expensive program is a worthwhile investment. A number of tutoring programs reviewed in this Bulletin provide estimates of their cost-effectiveness.

As an argument for the cost-effectiveness of Success for All, Madden and others (1992) point out that the annual cost of educating one Baltimore student is nearly $4,800 per year. "Retaining a student may be seen as investing a very expensive remedial year. Reducing retentions from 11% to

zero in a school of 500 students thus saves $264,000 per year." The Portland School District calculates its annual cost-per-pupil to be over $4,500 (Portland Public Schools undated).

The HOSTS Corporation asserts that a HOSTS program serving 60-120 children can be implemented for a cost equal to that of retaining six children for one year or of prosecuting one juvenile for a burglary (HOSTS undated d). The cost of tutoring certainly appears in a different perspective when compared with the long-range costs of school failure to the district and the community.

Augmenting Local Resources

Pooling resources or seeking outside funding sources can open up new options for districts with limited resources.

As Dunkeld explained, school districts too small to need the full-time services of a Reading Recovery teacher leader often form a consortium with neighboring districts. The school district of McMinnville, Oregon, is a case in point. That district's teacher leader worked exclusively with McMinnville teachers for the first year after completing her training at Portland State University. "Now she's offering the services to other Yamhill County districts. When she trains other people beyond her district, those districts contribute toward her salary through tuition fees," said Dunkeld.

The program information gathered by the NDN is a treasure trove of resources for school districts. Nelson describes implementation costs for most NDN-approved programs as "cheap, cheap, cheap" by comparison to costs for commercially developed programs. Oregon districts should also be aware that the Columbia Education Center, for which Nelson works, will aid districts in finding grant support for more expensive NDN programs. The private, nonprofit Portland agency does not charge fees for its services.

Combining Programs

This Bulletin has presented considerable evidence supporting the superiority of tutoring to other types of intervention and the greater effectiveness of some tutoring programs compared to others. Yes, programs using certified teachers as tutors appear more effective than programs using paraprofessionals; and yes, tutoring first-graders appears more cost-effective than later remediation. But it's not a matter of choosing one tutoring program over all others or choosing tutoring instead of using other forms of intervention. A better choice is to decide which effective approaches can be combined to achieve the greatest possible overall success.

Implementing Complementary Tutoring Programs

Tutoring programs that target different student populations can be used to complement each other. The Portland School District's Franklin/Marshall Cluster of schools is taking this approach by implementing the Valued Youth Program in addition to the already established Reading Recovery. According to Nelson, the Columbia Education Center assisted in obtaining funding to support the new program.

Reading Recovery and the Companion Reading Program are also highly compatible. As different as they are in design, these programs share a number of common assumptions. For example, both combine elements of phonics with a strong literature-based approach to reading. One cost-effective combination might be for a district to use Companion Reading in all its classrooms, benefiting at-risk students, middle achievers, and high achievers alike, and to refer the few children with particularly severe problems to the more expensive Reading Recovery.

Supporting Tutoring with Additional Interventions

Several programs presented here already include nontutoring components. Success for All provides extensive support services for extremely disadvantaged students affected by many risk factors. The Valued Youth Program, developed for a target population with one of the highest dropout rates in the nation, reinforces the benefits of tutoring by enlisting parental support, exposing tutors to positive adult role models, and validating tutors' efforts with payment and public recognition. Additional interventions could be added to any of the tutoring-only programs described in this Bulletin.

Less intensive, longer lasting interventions may be necessary to maintain the effects of an intensive, short-term tutoring program, at least for students affected by multiple risk factors. After reviewing the results of early intervention programs, Slavin and others drew the following conclusion:

> Maintaining reading success after it is established in first grade is easier, cheaper, and more effective than trying to remediate deficits, but some form of maintenance is necessary if at-risk students are to continue to grow in reading skills beyond first grade, to be promoted each year, and to stay out of special education.

Conclusion

Research and practice unquestionably support the effectiveness of well-planned tutoring. As this Bulletin has shown, effective programs incorporating tutoring are available in amazing variety. Tutoring can be the sole focus of a program or one element in a comprehensive approach. It can involve several schools, an entire district, consortia of several districts, or a single tutor and tutee. Certified teachers, five-year-old students, retired volunteers, and disruptive low-achievers can all tutor effectively when given the right training and support. The experience of tutoring can enrich their own lives as a result.

To paraphrase HOSTS founder Gibbons, given the wealth of possibilities there is no reason every at-risk child should not have a tutor or, perhaps, *be* a tutor. Not every tutor will be perfect, and not every program will reach all at-risk children equally well. But some form of effective tutoring is within the reach of every school, no matter how small its resources. Alone or linked with other efforts, tutoring can help schools move a little closer to the ultimate goal of preventing student failure.

Appendix: Sources of Information About Tutoring Programs

Companion Reading Program

Terry Summerhays
Metra Publishing
150 South 600 East #2D
Salt Lake City, Utah 84102
(801) 521-8593 or (800) 232-3168

Dr. Grant Harrison
Department of Instructional Science
Brigham Young University
Provo, Utah 84601
Phone (801) 378-2637

HOSTS (Help One Student To Succeed) Structured Mentoring Program in Language Arts

William E. Gibbons, CEO
HOSTS Corporation
1801 D Street Suite 2
Vancouver, Washington 98663-3332
Phone (206) 694-1705 or (800) 833-4678

Tom Woods, HOSTS Program Director
East Sutherlin Primary School
Sutherlin School District
730 West Central Ave., PO Box 500
Sutherlin, Oregon 97479
Phone (503) 459-2912

Programmed Tutorial Reading

Susan Ross, Chapter 1 Director
Davis County School District
Farmingham, Utah 84025
Phone (801) 451-1117

Project Success

Dr. Ronald Smith, Director of Special Education
North Kitsap School District No. 400
8998 NE West Kingston Rd.
Kingston, Washington 98346
Phone (206) 297-2969

Edmark Corporation
P.O. Box 3218
Redmond, WA 98073-3218
Phone (206) 861-8200 or (800) 426-0856

Reading Recovery

National Headquarters:

Dr. Carol A. Lyons, Director, or Andrea McCarrier, Coordinator
Reading Recovery Program
200 Ramseyer Hall
29 West Woodruff Avenue
Columbus, Ohio 43210-1177
Phone (614) 292-7807, FAX (614) 292-4260

Oregon Regional Training Site:

Dr. Colin Dunkeld, Teacher Leader Trainer
Reading Recovery Program
Department of Education
Portland State University
PO Box 751
Portland, Oregon 97207
Phone (503) 725-4685

Oregon Programs:

Julie Haggerty, Coordinator and Teacher Leader
Reading Recovery
Portland Public Schools
Curriculum Development and Services
513 SE 14th Avenue
Portland, Oregon 97214
Phone (503) 280-5840 ext. 445

Lin Colwell, Reading Recovery Teacher Leader
Lincoln County School District
Delake Elementary School
540 NE Hwy 101
Lincoln City, OR 97367
Phone (503) 994-8191

Structured Tutoring (see Companion Reading Program)

Success for All

Center for Research on Effective Schooling for Disadvantaged Students
The Johns Hopkins University
3505 North Charles Street
Baltimore, Maryland 21218
Phone (410) 516-0370

Valued Youth Program

National Headquarters:

Josie D. Supik, Director
Center for Prevention and Recovery of Dropouts
Intercultural Development Research Association
5835 Callaghan, Suite 350
San Antonio, Texas 78228
Phone (512) 684-8180

Oregon:

Leigh Wilcox, Director of Instruction
Franklin/Marshall Cluster
Portland School District
P. O. Box 3107
Portland, Oregon 97208
(503) 280-5797

Dalia Torres, Director for Special Projects
Woodburn School District
965 North Boones Ferry Rd.
Woodburn, Oregon 97071
(503) 981-9555 FAX (503) 981-8018

Willamette High School Peer Tutoring Program

Cassie Malecha, School Counselor
Willamette High School
1801 Echo Hollow Road
Eugene, OR 97402
Phone (503) 689-0739

Revised Peer Tutoring Manual will be available approximately April 1993 from either of the following two sources:

Confederation of Oregon School Administrators
707 13th St. SE, Suite 100
Salem, Oregon 97301-4035
Phone (503) 531-3140

Oregon Department of Education
Office of Student Services
Oregon Tower Building
700 Pringle Parkway
Salem, Oregon 97301-0290
Phone (503) 378-5585

For information about the National Diffusion Network:

Educational Programs That Work: The Catalogue of the National Diffusion Network is available for purchase from:

Sopris West, Inc.
P.O. Box 1809
Longmont, Colorado 80502-1809
Phone (303) 651-2829

National Diffusion Network
U.S. Department of Education
555 New Jersey Avenue NW
Washington, D.C. 20208-5645
Phone (202) 219-2134

Oregon State Facilitator Project
John Nelson, Special Projects Coordinator
Columbia Education Center
11325 SE Lexington
Portland, Oregon 97266
Phone (503) 771-1072

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Julie Haggerty, Coordinator and Teacher Leader, Reading Recovery Program, Portland Public Schools. Telephone interview August 18, 1992.

Anita Harder, Principal of Glenfair Elementary School, Reynolds School District, Portland, Oregon. Telephone interview August 27, 1992.

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