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ABSTRACT

This volume presents second year findings from a 3-year project that collected case study data on 10 promising strategies for educating disadvantaged children. The study occurred at 25 urban or suburban/rural sites. Participating schools had Chapter 1 programs or were eligible for Chapter 1. The sample included students in grades 1, 3, and 9 who were followed for 3 years. Strategies included Reading Recovery, computer assisted instruction, peer tutoring, extended-day and extended-year projects, schoolwide projects, Success for All projects, Comer School Development projects, Paideia projects, and Re:Learning/Coalition of Essential Schools Projects. Data collection included observations of classroom instruction and student-teacher and student-student interactions, interviews with school-related staff, and surveys of parents, teachers, principals, district coordinators, and students. All students completed standardized tests. Three children in each school were followed throughout their school day to examine what the special strategy and school were like for them. Second year findings included: all 10 of the special strategies had positive impacts on groups of at-risk students; quality of implementation was always critical; and fiscal and other crises had powerful negative impacts on program implementation. An appendix contains writing samples and a scoring guide. (Contains 31 references.) (SM)

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ED 457 300

Urban and Suburban/Rural

SPECIAL STRATEGIES FOR EDUCATING DISADVANTAGED CHILDREN

SECOND YEAR REPORT

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URBAN AND SUBURBAN/RURAL SPECIAL STRATEGIES FOR EDUCATING DISADVANTAGED CHILDREN

SECOND YEAR REPORT

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April 1997

URBAN AND SUBURBAN/RURAL SPECIAL STRATEGIES FOR EDUCATING DISADVANTAGED CHILDREN

SECOND YEAR REPORT

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Contract # LC90010001 and Contract # LC 90010002
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April 1997

This volume presents second year findings from the urban and suburban/rural studies of *Special Strategies for Educating Disadvantaged Children. Special Strategies* is a three-year project that is collecting case study data on 10 different strategies that were identified as holding promise for educating disadvantaged children. The study is being conducted in 25 sites located in urban and suburban or rural areas. The selection of participating schools was limited to those that had Chapter 1 programs or were eligible to participate in Chapter 1. The sample includes students in the first, third, and ninth grades in the 1990-91 school year: these students are being followed for a period of three years. The strategies examined include Reading Recovery, computer-assisted instruction, METRA and other peer tutoring, extended-day and extended-year projects, schoolwide projects, Success for All projects, Comer School Development projects, Paideia projects, and Re:Learning/Coalition of Essential Schools projects. The *Special Strategies* studies accompany *Prospects*, the congressionally mandated longitudinal study of Chapter 1, and supplement the large amount of quantitative data collected by that study with rich observational and interview data that permits obtaining an in-depth picture of events in the lives of classrooms and students.

Data collected by *Special Strategies* include observations of classroom instruction and student/teachers and student/student interactions; interviews with school-related staff appropriate to each of the program types; and surveys of parents, teachers, principals, district coordinators, and children in the third grade and above using instruments developed for the *Prospects* study. Standardized tests were administered to all students. Additional performance measures were obtained in year two. In addition, three children in each school are being followed throughout their school day twice each year in order to provide a close look at what the special strategy and school are like for these children.

Selected Second Year Findings

- All of the ten types of *Special Strategies* programs can have positive impacts on groups of at-risk students.
- In all programs, the quality of implementation is critical.
- Special Strategies offers virtually no examples of high implementation sites at which educators, especially administrators, have not exhibited a multi-year commitment to continued development.
- Fiscal and other crises can have powerful negative impacts on program implementation.
- Programs as implemented often look different inside classrooms than from without; if day-to-day curricula and instruction as received by students have not changed, there is little reason to expect improved student outcomes.

In year three, patterns of successful implementation of innovative programs will continue to be examined in the 25 original sites. The third year report will include quantitative analyses from a full-three years at *Special Strategies* sites, and comparisons to a matched set of *Prospects* sites. In addition, full sets of qualitative case study data will be examined in light of the three-year trends in student achievement gain and other outcomes.

This report is the second in a series of three (3) volumes. Copies of this report can be obtained by writing the U.S. Department of Education, Planning and Evaluation Service, 600 Independence Ave., S.W., Washington, DC 20202.

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Acknowledgments

The conduct of a multi-year, multi-program, multi-method evaluation is necessarily a complex task. It could not be undertaken without the supportive efforts of local educators, students, parents, and a significant number of researchers.

The first people deserving thanks are the students and parents who are participating in the study. Thanks to the over 1,000 students who took extensive tests for the second year of *Special Strategies*. Over 500 parents completed detailed questionnaires, and deserve equal appreciation. In addition, 75 students and their parents have been participating in more extensive observations and interviews. These families are making valuable contributions to our understanding of the workings of the various special strategies in the lives of the program's intended recipients.

Nearly 300 teachers, 40 principals, and over 20 district Chapter 1 coordinators graciously allowed *Special Strategies* researchers to visit their classrooms, schools, and programs. We owe them our deep gratitude.

Linda Winfield co-directed the *Urban Special Strategies Study* during much of its second year. I owe special thanks to Mary Ann Millsap, who co-directed the *Urban Special Strategies Study* and served as the lead researcher and administrator on the Abt Associates subcontracts for these studies. In addition to her methodological and analytical wisdom, Dr. Millsap has provided me and others at Johns Hopkins with a great deal of practical advice on the management of contract research tasks. She made major contributions to the overall outline of the report and several of the second year findings grow from her insights.

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The Special Strategies Studies Advisory Work Group reviewed preliminary findings and offered cogent criticism of this report. The work group members are Robert Carlson, University of Vermont; Carolyn Evertson, Vanderbilt University; Antoine Garibaldi, Xavier University; Ruth Johnson, California State University—Los Angeles; Twila Martin Kekahbah, former Chairperson, Turtle Mountain Band of the Chippewa Nation; Rafael Valdivieso, Academy for Educational Development; and Matthew Miles, Center for Policy Research. Dr. Miles died before this final report was released, and he is much missed.

I would like to thank our U.S. Department of Education Technical Representative, Elois Scott, for her management of the study and for her comments on our work. We also appreciate the substantive comments of Alan Ginsburg, Valena Plisko, and other staff members in the Office of Planning and Evaluation Services. Thanks as well to Mary Jean LeTendre, Tom Fagan, and William Lobosco of the Compensatory Education Program for their comments and critiques of earlier drafts.

Sam Stringfield
Suburban/Rural Project Director and
Urban Project Co-Director

Table of Exhibits

Chapter One

Executive Summary

Sam Stringfield and Nancy Yoder
Johns Hopkins University

In September of 1990 the United States Department of Education awarded two contracts to examine promising alternatives to the services typically funded under Chapter 1. Both studies are being conducted by the Center for the Study of Effective Schooling for Disadvantaged Students (CDS) of Johns Hopkins University and their subcontractor, Abt Associates Inc. This report summarizes findings from the second year of the *Urban and Suburban/Rural Special Strategies Studies for Educating Disadvantaged Children.*

This "Executive Summary" presents the major purposes of the *Special Strategies* studies, provides second year findings, and outlines steps planned for the final year of the study. The strengths of the *Special Strategies* studies originate from the longitudinal nature of the undertaking. All first and second year findings are tentative.

Major Purposes of the *Special Strategies* Studies

The *Special Strategies* studies were developed to accomplish three primary goals:

1. To describe promising alternatives to traditional Chapter 1 practices. This includes the collection of in-depth information about day-to-day operations of a variety of innovative teaching and programming strategies.

2. To compare the characteristics of those promising alternatives to more traditional practices. This includes the gathering of various process and outcome measures across several program types and, where available, contrasting those results with the more quantitative data gathered in *Prospects.*

3. To assess the replicability of programs which appear most successful. This includes evaluating factors that may facilitate or impede implementation elsewhere.

Descriptions of the Special Strategies

The study is gathering qualitative and quantitative data at sites representing six urban program types, and six suburban/rural program types. The specifications of the Request for Proposals required that

some categories of programs, such as Chapter 1 schoolwide projects, be sampled in both the urban and the suburban/rural contracts, so that the total number of strategy types being investigated is ten Longitudinal research was conducted at 25 schools..

The strategy types sampled include Reading Recovery, computer assisted instruction, METRA and peer tutoring programs, extended day and extended year projects, schoolwide and extended year schoolwide projects, Success for All, Comer School Development programs, Paideia projects, and Re:Learning/Coalition of Essential Schools. For the purposes of this second year report, these strategies are discussed under three umbrellas: philosophy or research-based strategies, schoolwide strategies, and adjunct strategies.

Philosophy or Research-based Strategies

Mortimer Adler's (1982) *Paideia Proposal: An Educational Manifesto* served as a clarion call for improved quality of schooling for all children. Adler stated that all children are entitled to academic "cream," rather than some being given cream while others receive "skim milk." Through the reading of challenging material, didactic instruction, coaching, and "Socratic seminars," students are encouraged in the "development of [higher order] intellectual skills."

The Coalition of Essential Schools (CES) was developed by Brown University's Theodore Sizer. Dr. Sizer worked for several years with Mortimer Adler, and the effects of those years are easily seen in CES's nine principles. CES is a school restructuring proposal which outlines broad directions and leaves the construction of specific curricula and instructional methods in the hands of local educators. Re:Learning is an enhancement of CES which is being developed by the Education Commission of the States. The goal of Re: Learning is to provide support for CES principles "from the statehouse to the schoolhouse."

James Comer's School Development Program is rooted in the developer's experiences in community psychiatry at the Yale Child Study Center. Over several years, Dr. Comer has evolved a program which focuses the school's, social service programs', and families' attention on the total needs of children. The Comer program stipulates that by addressing the full range of students' needs, and by integrating services in schools, school staff can more adequately meet the academic and other needs of children and families.

Success for All is an intensive school restructuring program designed to be implemented in settings with highly disadvantaged students. The goal of the program is to have all students reading on grade level by the end of third grade. Success for All was developed at Johns Hopkins University. In order to insure impartial program examination and reporting, all data gathering and case writeups associated with that program are conducted by Abt staff.

Schoolwide projects

A variety of projects can be implemented under Chapter 1's "schoolwide project" option. In the suburban/rural study, the schoolwide project schools have virtually eliminated pullout programs. In the urban study, sites are being examined which mix reduced class size and other advantages of the schoolwide option with the availability of additional instructional specialists. Two of the urban schoolwide projects were selected because they chose to extend students' school years.

Adjunct programs

Reading Recovery is an intensive, first grade, one-to-one tutoring program. Reading Recovery was developed in New Zealand by Marie Clay. In Reading Recovery students spend one half hour per day for up to 12 weeks with a highly trained reading specialist. The time is spent reading several books which have known difficulty levels, and in writing activities. Two assumptions of Reading Recovery are that students who are having difficulty learning to read can be taught to read in 12 weeks, and that once they have learned a set of reading skills, the students can progress for several years without needing further remedial assistance.

The Computer Curriculum Corporation (CCC) offers one of the more widely implemented integrated computer assisted instruction packages. In CCC, students spend 12-25 minutes each day in interactive, computer driven instruction. A file server records each student's pattern of answers each day, and selects new activities for each child for the following day. The particular commercial program was chosen not as a commercial endorsement, but because it has a longer and more often independently documented evaluation history.

METRA is a commercially available, highly structured reading tutorial program which has been found to produce significant gains in achievement. METRA can be implemented either in a cross-age peer tutoring format, or as a paraprofessionally delivered program. A locally developed peer tutoring program is being examined as a companion to METRA.

The logic of extended day and extended year programs is straightforward: if students aren't learning enough, provide them with more, and perhaps varied, instruction. It is also often argued that one reason American students don't perform as well on international comparative studies is that students in the U.S. go to school for fewer hours per day and fewer days per year than students in any other first world country. In the *Special Strategies* studies, both after school and summer school efforts are being examined. These include a summer migrant project which serves both migrating and "settled out" migrant students.

Design

A history of research related to Chapter 1 generally and to promising programs for educating disadvantaged students particularly was produced during the first year of *Special Strategies* (Slavin, Stringfield, & Winfield, 1990). A detailed description of the design of the *Special Strategies* studies was provided in the overview of the *First Year Report* (Stringfield, et al., 1994).

Urban and Suburban/Rural Special Strategies studies are gathering longitudinal qualitative and quantitative data regarding ten programs which show promise for enhancing the educations of disadvantaged students. For each program a minimum of two and a maximum of five sites are being followed for three years.

A unique feature of *Special Strategies* is its links to the nationally representative Prospects data set. Prospects quantitative data gathered at each site include norm-referenced achievement test scores, archival data from student records, and questionnaires given to administrators, teachers, parents and students above third grade. *Special Strategies* research teams spend a minimum of three days on site at

each of the 25 longitudinal-study schools each semester. During those visits, researchers interview administrators, teachers, parents, and students. They also gather specific data on classroom processes. At each school, three students were identified during year one for extended observation. Those students are followed through "whole school day" observations at each subsequent school visit. These detailed records provide often remarkable windows into longitudinal impacts of programs on schooling, including organization, curriculum, and instruction as received by students.

In addition, during the second year of the study, two replication sites were visited for each program which had fewer than four longitudinal sites. The replicates were studied in far less detail. No quantitative data were gathered, and qualitative data gathering was targeted at specific components of programs or program implementation that had not yet become clear at the longitudinal sites.

Analyses of quantitative data are proceeding on three fronts. The first is the production of descriptive and comparative data. In what ways are the *Special Strategies* schools similar and dissimilar to the more nationally representative Prospects schools? Second, relationships among the quantitative input and process data and the outcome measures are being investigated. These analyses are progressing for both the performance measures and the CTBS data. Third, the relationships between quantitative and qualitative case study data are being investigated. All of these analytic processes are continuing into the third and final year of the *Special Strategies* studies.

Second Year Findings

The four overarching findings of the first two years of the *Special Strategies* studies are as follows. First, there is some qualitative and/or quantitative evidence that virtually all of the ten types of *Special Strategies* programs can have positive impacts on groups of at-risk students; however, in all programs the quality of implementation appears to be critical.

Second, although schools were selected through a process of multiple nominations as exemplary implementations of the various programs, examples are few of nearly full implementations of programs at the 25 *Special Strategies* sites. "Full implementation" appears to be a goal toward which professionals eternally strive as opposed to an achievable short term objective. Even moderate levels of sustained implementation require long-term commitment by multiple levels of leadership to a unified vision and the provision of adequate resources to move toward that vision. A critical component which is often under-supported by leadership is long-term, program-specific staff development. *Special Strategies* offers virtually no examples of high implementation sites at which educators, especially administrators, have not exhibited a multi-year commitment to continued development.

Third, fiscal difficulties and other crises beyond the control of the various programs (and often, schools) can have a powerful negative impact on the rate of program implementation. High levels of strife within faculties or between faculties and administrators also can limit implementation.

Fourth, programs as implemented often look different from inside classrooms than from without. Interviews with developers, with state, local, and school leaders, and even with teachers involved in the programs often could lead to conclusions which would be very different from those based on extensive classroom observations. It has been the extended classroom observations which have been most helpful to *Special Strategies* researchers in understanding the first two years' achievement data. Regardless of what is said in interviews, if day-to-day curricula and instruction as received by students have not changed in a school, there is little reason to expect improved student outcomes.

More specific findings, reflected in the various chapters, include the following:

- Compared to other Chapter 1 schools across the country, schools in the *Special Strategies* studies serve communities which are at greater economic disadvantage and serve larger numbers of minority students.

- Principals and teachers in *Special Strategies* schools do not look appreciably different from their counterparts in other Chapter 1 schools in most categories, such as years of teaching or administrative experience.

- Principals in *Special Strategies* schools *do* differ from staff in other Chapter 1 schools in the amount of staff training in which they have participated during the last three years. Principals are more likely to have participated in training in a wide variety of topics related to Chapter 1.

- Differences are often considerable between the strategy as intended and the strategy as actually observed.

  √ Across the five high schools participating in the Coalition of Essential Schools, the most well-implemented program features are a positive and caring school climate and the active participation of students. Less well implemented are the curriculum-related components.

  √ In the Paideia schools, children continue to receive Socratic seminars, but individual coaching is less evident.

  √ One Comer school is a strong implementation while the other has yet to implement desired components in a meaningful way.

  √ One Success for All school has incorporated virtually all aspects of the Success for All program with changes representing continued customization of the program; the second school altered most program components when it temporarily lost its Chapter 1 schoolwide project standing.

  √ Many schoolwide projects reduced class size and eliminated or reduced pullout programs. We found little evidence that these changes resulted in changes in instruction, other than an increased awareness of students' personal needs that may affect their ability to learn.

√ Of the four adjunct programs represented in the study (Reading Recovery, computer assisted instruction, tutoring, and extended time), each school demonstrates at least a moderate level of fidelity to the strategy; continuing issues for adjunct programs remain the integration of the strategy into the regular curriculum and the amount of time needed to go from the classroom to the separate program.

- Ongoing staff development is a necessary component for the successful implementation of special strategies. While the type and amount of in-service vary with the strategy, all require educators to behave in new ways.

- Most special strategies are making significant efforts to increase the role of parents in the school and in their children's educations. Strategies in 19 of the 25 schools in our study have parent involvement as a key objective.

- Students have widespread access to the basic subjects of reading/language arts and mathematics but uneven access at best to other curricula, including science, social studies, computer instruction, and writing.

- The overall picture of life in the majority of *Special Strategies* classrooms is one in which management drives the educational experience, as evident in rigid models of instruction and substantial time spent in transitions, management and interruptions.

- Although many of the *Special Strategies* schools' populations are culturally diverse, the instruction observed often does not reflect that diversity.

- From fall to spring, second grade students wrote longer stories and improved their writing performance on three scales, while fourth grade students' writing performance stayed about the same.

- Students in schools implementing Chapter 1 schoolwide projects achieved writing performance results similar to those obtained by *Special Strategies* students as a whole.

- The majority of students in high school *Special Strategies* programs wrote papers assessed at the level of minimal analysis, broadly comparable to the scores of students from the NAEP writing assessment.

- On the applied literacy measure, *Special Strategies* students performed considerably better than out-of-school young adults with some high school education; on the prose and document measures, *Special Strategies* students performed similarly to high school graduates.

- Observing a special strategy is watching a dynamic process, an interactive web which creates a distinctive kind of learning environment.

- Special strategies are fragile learning environments, vulnerable to threats which limit their usefulness at a particular school.

- Replicating special strategies requires meeting a set of preconditions which developers often have not made explicit, obtaining and holding key staff, mastering instructional methods and

curriculum, and securing resources. The specific challenges associated with those four preconditions vary from strategy to strategy and school to school.

Organization of the Report

The first goal of the *Special Strategies* studies is to describe each of the promising programs in depth and detail. Part I of the second year report looks at the *Special Strategies* from several different perspectives.

Chapter Two tells three stories of life in *Special Strategies* schools from three different points of view. The first narrative explores the interactions among a student, her teacher, and her family. The second narrative describes how one school, its staff, and its physical constraints influence a program. The third narrative explores how the idea of a program is transformed at the school and classroom level. All the tales are cautionary, because they explore some of the difficulties in implementing *Special Strategies* programs.

Chapter Three profiles the schools, teachers, and students in the study. *Special Strategies* researchers have collected the same achievement and questionnaire data as gathered in a nationally representative set as part of the Prospects study. Preliminary profiles of *Special Strategies* schools reveal that the efforts to select schools which serve unusually high poverty student populations were by and large successful. Several other comparisons among *Special Strategies* sites and between *Special Strategies* schools and teachers and those in Prospects are presented.

Chapter Four compares the intended special strategy with its actual implementation in schools and classrooms. For each strategy, the report summarizes the desired components of the model, the components observed in place in schools, and the impact on instructional services provided to students.

Chapter Five focuses on special strategies in the classroom. To date, field researchers have observed two or three students at each site for one day during each of three site visits. This chapter describes those "Whole School Day" observations and summarizes what researchers learned about the access of children to academic instruction, the balance between academic and non-instructional time, teaching behaviors, and cultural diversity.

The second goal of the *Special Strategies* studies is to compare the characteristics of the promising programs to more traditional practices, including looking at process and outcome measures. Part II of the second year report analyzes writing assessments, and alternative assessment measures.

Chapter Six reports the administration and results of a structured writing assessment of second and fourth graders in the *Special Strategies* schools, given as a performance-based assessment to complement the standardized achievement test data, which revealed improved writing performance for second graders. Several additional analyses await the arrival of data from the *Prospects* study.

Chapter Seven reports the methods and results of alternative assessments conducted in *Special Strategies* high schools, including writing assessments and a performance-based literacy test. Other analyses will be completed when the full spring achievement data set is available from Prospects.

The third goal of the *Special Strategies* studies is to assess the replicability of programs, including factors which facilitate or impede implementation.

Chapter Eight describes the *Special Strategies* programs as interactive webs of support, as dynamic relationships which create qualitatively different learning environments. These webs of support are presented as critical to the success of all educational improvement programs.

Chapter Nine discusses issues of implementation and replication strategy by strategy. Looking at each program in turn, the chapter outlines preconditions for a strategy's implementation, the roles of key staff, instructional methods and curriculum, and needed resources.

Plans for Year 3 of the *Special Strategies* Studies

Four activities will be undertaken during the final year of the *Special Strategies* studies. One third-year field visit will be made to each of the 25 longitudinal sites. This will be the fifth and final round of on-site data gathering at these sites.

Quantitative analyses which span *Special Strategies* and *Prospects* will be expanded. As multi-year *Prospects* data become available, comparative analyses will become increasingly important. At the *Special Strategies* sites, a third full year of CTBS achievement data will be available. This will be invaluable in determining the effects of the schoolwide, philosophy/research-based, and adjunct program types as contrasted with more nationally representative *Prospects* sites.

A focus of third-year analyses will be studies of the linkages between *Special Strategies'* unusually detailed three-year case studies and results from the full three years of outcome data. The case studies have contributed greatly to our more nearly holistic understanding of the schools and programs in the study. Exploring the qualitative to quantitative process and outcome data intersections is a major challenge for the third year.

In addition to producing a final report and technical documents in support of that report, *Special Strategies* researchers will disseminate results through at least one professional publication.

Part I

LIFE IN SPECIAL STRATEGIES SCHOOLS

Chapter Two

Multiple Perspectives on Special Strategies: Cautionary Tales

Nancy Brigham, Abt Associates, Inc.;
Pamela Nesselrodt, Loyola University Chicago, and
Eugene Schaffer, University of North Carolina-Charlotte

Overview

For two years, we have been studying the implementation and effectiveness of 10 special strategies in 25 schools around the country. Because each special strategy has a name, objectives, and component parts, one can slip into believing that what we are observing are demonstrations of experimental vaccines with prescribed dosage amounts. We are not. Each special strategy interacts with a human as well as physical context, which alter it just as the program makes a difference to the people and context it touches.

The purpose of this chapter is to introduce the reader to the several levels of the *Special Strategies* studies—strategy, school, and classroom/student in a way that demonstrates the connections of strategies to their context and the importance of a host of external influences in the implementation process. The purpose of the narratives is to capture the implementation process over time in an ever evolving context. Thus, the narratives take place from three perspectives: the student, who becomes exposed to a special strategy; the school, which adopts the special strategy; and the history of a single strategy. Each of the three stories includes parenthetical comments that point out significant implementation issues or important features of the strategies.

The three narratives are called cautionary tales because they explore barriers to program implementation and the difficulties encountered in carrying out the implementation process. The narratives attempt to address three questions frequently asked about programmatic interventions:

- What difference do new programs make in the lives of children?
- Why is it so difficult to make programs work in schools?
- What happens to these programs in the implementation process?

The narratives each examine one of these three questions. The first focuses on a child's perspective of a new program, the second on a school's constraints in taking on a new program, and the third on the transformation of a program by the implementation process. In each case, the example chosen is representative of the children, schools, and programs.

The Student's Perspective—The Story of Lakira

Lakira lives in the housing projects of a major eastern city. In her neighborhood everyone is African-American and virtually everyone is on welfare. The housing is composed of "garden apartments" and while they are not as unsightly as high-rise projects, few gardens are in evidence and both grounds and houses are unkempt. The school Lakira attends is a neighborhood school in every meaning of the word. Like the neighborhood, it is shabby and the schoolyard shows evidence of neglect. It does not really have a playground—there is a parking lot and a vacant lot in which the children play at recess. Some people think the vacant lot is dangerous; certainly it would be a dangerous place to fall down since it sparkles and crunches with fragments of broken glass from cheap bottles of wine and liquor.

Lakira lives with her mother, grandmother, and older sister. Her father, whom Lakira is said to adore, does not live with the family but sees Lakira quite often. Lakira's first grade teacher describes him as beautifully groomed, always wearing suits, someone who has "obviously made something of himself." Lakira's mother has a full-time job, so Lakira is cared for by her grandmother after school. When queried about participation in parent activities at school, the grandmother says that she is too frail and that Lakira's mother is too busy.

The special strategy implemented in Lakira's school is Success for All (SFA), a structured and intensive early intervention program that aims to have all students performing at (or near) grade level in reading by third grade. This strategy was implemented by Lakira's school in 1988 when the school became a schoolwide project. As required for a full implementation of SFA, the school augmented its staff with a full-time program facilitator, a social worker, and a complement of certified reading teacher/tutors who make it possible for children to receive their reading instruction in homogeneous groups and for those who are reading below grade level to receive one-on-one tutoring. This school has received both additional Chapter 1 money for its schoolwide project and a grant from a local foundation to implement SFA.

Lakira was first exposed to SFA when she was in kindergarten, where she received instruction in basic language development through a technique called "Story Telling and Retelling"

and where she began to learn phonics. At the time Lakira was selected for observation in first grade, she was reading about six months below grade level. In the Whole School Day (WSD) observation excerpted below, Lakira is in second grade.

All the children walk to school; many are accompanied by parents or older brothers and sisters. In Lakira's classroom, the process of getting settled and handing in homework is a slow one. At 9:00 a.m. when it is time to regroup for reading, children have just settled down in their chairs and the halls are still noisy with adults reprimanding late arrivers. Lakira is one of those children who leaves the regular classroom to go to another reading group, which is composed of 15 students, the largest number allowed in a reading group by SFA. All the children in this group are reading at about the same level. (SFA calls for students to be tested every eight weeks and regrouped if necessary so that every child is in an appropriate reading group and children who are falling behind can be identified quickly. This is the feature of SFA that this school's teachers tend to like the best.)

As the observation begins, the teacher is reviewing a word mastery list but Lakira pays no attention. She doesn't volunteer and, in fact, hardly blinks as the teacher tries with some animation to get a response from the class. Later, the reading teacher tells me this group tends to be passive and that today, the day after a holiday, is particularly bad since children are tired. This is the 2.1 group and the teacher says she thinks Lakira will be on grade level (2.2) when the next eight week assessment is done. The teacher also says that Lakira has wonderful work habits. (This teacher is part of the augmented staffing of SFA. She teaches this reading group in the morning and then does one-on-one tutoring in the afternoon.)

The regular classroom teacher perceives Lakira differently and thinks she is lazy because she almost never participates in class and seldom finishes her work. She blames Lakira's mother for always letting Lakira bring something to school that she can play with and thinks that prevents her from learning. Today she has a watch without a strap that she holds all day. The teacher has called Lakira's mother about this but has not gotten cooperation. The teacher also thinks Lakira's mother is too preoccupied with clothes and jewelry for Lakira and that she conveys the impression to her daughter that how she looks is more important than what she learns. Lakira's mother says the school is "crude" and that it doesn't recognize the children are doing their best. She says it is important to her and to Lakira that Lakira look nice and have good manners. She agrees that her daughter is quiet and "slow to get things done," but says that it is "just her nature."

At 9:10 a.m. the children are told to open their reading books and review and finish the Treasure Hunt questions. (Treasure Hunts are an SFA story test tool to make sure students understand the stories they read. In addition to recall, Treasure Hunt questions seek to address higher order

thinking skills by requiring children to answer "why" questions about the actions of characters.) Lakira seems in a world of her own and doesn't even move. When the teacher speaks to her, she gets out her book but does not read. She is yawning and playing with the watch. There are not enough books and some children have to share—they don't like it and there is grumbling.

At 9:20 Lakira is looking through her composition book to see if she has already done this assignment as the teacher says some children have. The teacher tells the children they must be done by 9:40. Apparently satisfied she has not done the work before, Lakira begins. She seems to know how to skim for the answers and finally begins to show some animation, singing to herself as she works. The teacher notices her working and comments, "Lakira is doing a nice job." (The teacher believes that the reduced class size in reading, which is a key SFA component, is very valuable because children like Lakira who are quiet can get some personal attention and feedback.)

At 9:55 the teacher is trying to get children motivated to review their work, but four have never started. Lakira is done and reading to herself; she is moving her lips but seems engrossed. (Teacher tells the observer that a field trip has interrupted the continuity and children have forgotten what they read before.) For review the teacher is helping children to look for answers in the story. Lakira is actually doing it. Lakira answered the other questions correctly but did not seem to get the "why" questions in the Treasure Hunt. The others in the group didn't either. The teacher does her best to pull answers out of them, but this is an obvious area of weakness for the group. (The teacher thinks higher order thinking skills are addressed more intensely in SFA than any other reading curricula she has used; she makes a point of praising SFA Treasure Hunts for requiring children to write full sentences to answer questions; most basal reader story tests ask only for one word answers and, according to the teacher, "children never do learn how to write a complete sentence.")

It is time for partner reading. Children form teams of two in various spots in the room and begin reading aloud to each other. (This is an SFA exercise in cooperative learning in which one child reads and the other corrects his or her mistakes. The teacher circulates from group to group to keep them on task and assist as needed.) Lakira is not good at listening while her partner reads, and she reads ahead in the story. When it is her turn, however, she seems to enjoy reading aloud and tries to push her turn at reading into extra paragraphs. The partner protests and Lakira lets her have a turn reading. The reading in general is laborious and stumbling. (Based on observations at higher grade levels, cooperative learning improves as children develop better reading skills and better social skills.)

The transition back to the regular classroom takes ten minutes before all children are settled. (SFA is a program that requires considerable movement of students. This school tends to have

management problems and excessive time is lost in transitions; they are working on the problem but have not yet solved it.)

SFA requires two hours and 15 minutes a day of reading and language arts instruction. Lakira does not receive the remainder of her instruction until tutoring takes place after lunch. In the meantime, she receives instruction in science and in a Writing to Read Laboratory. The class is now heterogeneous and contains 26 children. In contrast to the variety of activities in SFA in which children may be grouped and regrouped several times, the instruction in other subjects requires them to sit still and listen to the teacher talk. It is traditional lecture and seatwork. Lakira and the other children are increasingly passive as the day goes on; Lakira's body droops in her chair and she (like many of the other children) begins to suck her thumb surreptitiously. There is no physical education at this school and outdoor recess happens infrequently. Thus, second graders may sit in their chairs listening or reading/writing for several hours at a time.

At 12:25 Lakira is at tutoring, which should have begun at 12:15. (This school lost its schoolwide project status based on a failure to show sufficient improvement on the 1991 district tests. The resulting loss of funding meant they could not provide one-on-one tutoring this year. In an effort to maintain the tenets of SFA the best they can, they have instituted tutoring groups of six to eight children who have similar needs. Everyone interviewed stated this is a less than satisfactory solution but they perceived no choice.) The reading teacher introduces a story about construction in the city, using questions about the pictures and trying to get children to relate the story to their own experiences. Lakira is quiet. She is playing with the watch again and counting numbers on her fingers. Then she counts the pages in her book. She is tuned out until it is her turn to read but then does a good job. (If this were one-on-one tutoring as it is supposed to be, the experience would be very different and the teacher would be able to hold Lakira's interest and focus her attention. Fortunately, the school has regained its schoolwide project status for next year and one-on-one tutoring will be reinstituted.)

The tutoring session goes on until 1:00 p.m. When Lakira returns to the regular classroom, she has no idea what other children are doing and she has nothing to do. (The problem is common with pullout programs and this SFA site is no exception.) Her body slumps and she spaces out until math begins at 1:15. Once again, the instruction consists of a teacher-led instruction and seatwork. With 26 children to instruct and no assistant in the classroom, the teacher is able to provide very little individual attention or enrichment. At 1:45 Lakira goes to recess and then to the magic show in the auditorium until the end of the day.

The Perspective of the School: Payne School

In the rural area of the south where the Payne School is located, the population is a mixture of African-American and White; the common denominator is poverty. Payne's reputation is neither the best nor the worst school in the community. The school is overcrowded and the front hall doubles as a teacher's lounge while the cafeteria doubles as an auditorium. Additionally, the stage serves as the Chapter 1 teachers' classroom. There is no parking lot and teachers and staff park on the school's front yard. A pleasant tree-shaded playground is at the back of the campus where, in this temperate climate, children get to play outdoors most days of the year.

The strategy implemented at Payne School is the Computer Curriculum Corporation (CCC) educational software for computer-assisted instruction. CCC is used in a computer laboratory staffed by a trained paraprofessional. Each child who participates in CCC receives 11 minutes of math and/or 13 minutes of reading each day. Extensive branching within the program guides students to the specific level of skills to be practiced in each content area.

Payne School attends closely to the state's objectives for students, which are related to subject mastery as assessed by improved test-taking performance. CCC was selected because district staff were especially interested in raising test scores in math. CCC is considered an effective tool, since its goal is that students achieve learning gains of 1.5 years over a school year. District staff report there was considerable initial resistance from administrators and teachers about the computer-assisted instructional system, but that results in terms of improved student achievement test scores have converted even the original skeptics into advocates.

The current principal at Payne has been at the school for four years. He was not involved in the decision to implement the program, which was made at the district level. The principal tends to be supportive, in a lukewarm way, about the potential of CCC as an intervention strategy. A part-time assistant principal spends two days a week at Payne—she was there when CCC was introduced and is an ardent supporter of the program. The CCC lab has been managed by the same paraprofessional since it opened. She seems to be very conscientious and punctilious about keeping track of children's work and giving rewards for good work.

Finding space for a CCC lab in this school required juggling space in the office wing. The lab location is not ideal; it is in a small room so close to the office and front door that disruptions are frequent from conversation in the halls and classes passing. Nine work stations tax the capacity of the room; certainly no more can be added or the whole operation will spill out into the hall.

At Payne, children are selected to participate based on their test scores since CCC operates as a limited pullout program. Some children attend for double sessions (one for math and one for

reading) and go for one 30-minute block. Classes in which a large number of students attend the lab have a constant coming and going because some students go for 15 and some for 30 minutes. CCC is one of several pullouts at the school, including Chapter 1, resource, and a district-sponsored computer literacy program. This leads to complaints by teachers that they never have their whole class together and that instruction is disrupted all day. However, since Payne is not a Chapter 1 schoolwide project, teachers cannot take their entire class to CCC and remain with them as in the other CCC site in the study. This results in a lower level of coordination between the classroom teacher and the CCC laboratory aide, since they seldom see each other and no time is available in the school schedule for them to meet formally.

Based on the Whole School Day observations of students in the third and fourth grades, children enjoy the CCC experience and it represents concentrated time on task that holds their attention. Students have a variety of activities and a range of questions to answer, including some that emphasize higher order thinking skills. Among the observations that have been made are the following:

> No time is lost as K. knows exactly how to sign on and get started. He is slow but very careful and engaged in the story problems on the screen. Each time he gets one right, the machine gives him positive feedback, which evokes a quiet smile. This is the first time K. has had one-on-one instruction all day and he apparently relishes it.
>
> M. logs onto Reader's Workshop. The first two groups of questions are about factual comprehension from stories presented on screen. When he answers something correctly the computer responds "good work" or "right." Vocabulary is next and he gets 11 of the 13 questions right. Another story is followed by more difficult and inferential questions, which give M. more trouble.

Based on the experience of another school in the district and his reading of the literature, the principal has decided to open the CCC lab to first and second graders, which is the level at which he believes the greatest achievement gains will take place. However, the physical limitations of the laboratory are making this plan problematic to implement at present and this is one instance where what may be a very good idea is being impeded by the shortage of resources.

This shortage of resources has an ongoing and deleterious effect. Because the school and the district lack resources to implement CCC in an optimal way, the school is forced to stagger students' sessions, which leads to fragmentation and disruption of the school day. This is one reason the program, despite its apparent effectiveness, is not universally popular with teachers; another reason is they seldom get to see it in action or observe their students in the laboratory as they would in a schoolwide project. The reactions of teaching staff to this intervention remind us that regardless of the intrinsic structure of an intervention, the program's effect on students is mediated by many other factors.

The Perspective of the Program: Paideia

In his trilogy, *The Paideia Proposal, Paideia Problems and Possibilities*, and *The Paideia Program*, Mortimer Adler presents the theoretical underpinnings of the Paideia program. All students are entitled to the same education both in terms of content and instructional methodology. That is, all students should be given "cream" rather than some being given "cream" while others are given "skim milk." The content stems from a classic education of great literature, while instructional methods are described as "three columns." The Socratic seminars, the cornerstone of the program, are to enhance the questioning skills of students to enlarge their understanding of issues. Coaching, the second column, is one-on-one or small group instruction where the teacher works with students to improve their skills. The third column is didactic instruction, the traditional teacher-led instruction that too often is the sole instructional method in schools. Adler provides some tentative suggestions for the actual implementation of the program. He does not, however, provide teachers and school administrators with a model program containing specific guidelines for schools that want to become "three-column" Paideia schools. Instead, Adler leaves the steps of implementation to practitioners on the spot.

Adler does, however, make assumptions about what school administrators are to provide to the program. Of the building administrator, Adler says:

> ". . .the head of the school—its administrator—should not be solely or even primarily concerned with running the school efficiently or economically, or merely with keeping the peace of the community. . . . [The school community's] main business is teaching and learning. The head of the school—its principal—should, therefore, administer all other affairs in ways that facilitate the main business. (1982, pp. 63-64)

The very least an administrator can do is to understand and support the implementation of the program. An active and committed principal who has power recruits staff interested in the program and releases those who do not meet standards. Adler adds that the principal must "have the power to establish and enforce rules of decorum." Finally, the principal, as master teacher, creates opportunities to involve students, teachers, and the community to enhance the programs.

At Paideia-A, the site-based management in place within the school district supports the continuation of the program. Because the principal is free to allocate funds as she deems fit, it is relatively easy to maintain and expand the program. A second support, closely related, is the principal's own belief in the program. This appears to guarantee leadership that enables the continuation of the program during her tenure at the school. Furthermore, the school district has recognized the program as an integral part of its magnet school offerings and promotes this school in

its magnet school literature. In fact, there are three Paideia schools in the district. And, because this particular site has a magnet program in a predominately African-American neighborhood, it receives a substantial amount of desegregation monies from the federal government. These funds also support the sustaining of the program.

In addition to administrative supports, Adler suggests what backgrounds the teaching faculty are to bring to the classroom. Adler does not anticipate that all teachers are educated persons. Rather, he sets forth the notion that as long as a small cohort of strong teachers are part of the program, they will be able to pull the others along and strengthen the skills of those weaker cogs in the Paideia machinery. (Based on observations, that is probably not the case. Staff development is a very important piece of the program at both schools in this study. Likewise, implementers usually choose to have much more in the way of supportive staff and resources, a program coordinator, computers to assist in the coaching of students, electronic bookshelves to monitor student's reading, hands-on science materials, and whole-language-based texts, parent-volunteer coordinators, etc.)

Schools which wish to implement the program must base implementation on their own understanding of Adler's Proposal, visits to other Paideia sites, conversations with fellow implementers, and workshops they might arrange. Approaching implementation in this manner is a monumental task. Not only are the logistics of arranging visits among those interested in the concept difficult but the areas left rather gray in Adler's writings are large, thus requiring much interpretation by implementers. Furthermore, the Paideia content Adler suggests is stringently based primarily on great works of literature. Additionally, teaching methodologies are complex, requiring skills not typically part of pre-service teacher education programs or in-service training programs. And, finally, the integration of the content with the methodologies requires an understanding of the various pieces of the program as well as an overall vision of it. In operation, staff development is a major component of Paideia implementation.

At Paideia-A, teachers receive continual staff development both at faculty retreats at the beginning of the school year and at staff seminar/training sessions held once a month after school throughout the school year. Additionally, teachers have the opportunity to attend Paideia training workshops at St. John's College in Santa Fe, New Mexico, during the summer months. During the summer of 1989, eight teachers took advantage of the New Mexico training. As new teachers join the faculty, they receive mentoring from veteran seminar leaders who conduct the seminars in new teachers' classrooms as demonstrations until new teachers feel ready to take over themselves. In addition, they immediately become part of the faculty seminars and again learn through modeling. There are no orientation/training sessions for new faculty. Faculty from the Philosophy Department at

University of Chicago, where Adler is on faculty, have played an integral part in staff development by conducting both staff and student seminars at the school. Since the school's main thrust in its implementation of the Paideia program has been in the areas of Socratic seminars and coaching, staff development has focused on developing teaching skills related to those two methods of instruction.

The level of implementation at the classroom level seems to be less a function of the level of implementation at the school level than of any individual teacher's skills. At both Paideia sites, there are teachers who consistently provide instruction that reflects the Paideia Program's goals and others whose delivery does not. At Paideia-A, for example, third graders (1990-91) received 50-minute seminars once a week, using open-ended questions. Follow-up activities included carefully planned writing and computer lab activities with teachers serving in a coaching role. The following fall, the fourth graders continued their 50-minute seminar but the coaching activity had become a homework writing exercise. The fourth grade teachers, newer and less well trained in Paideia, needed time to incorporate Paideia principles into their classrooms. By Spring 1992, some teachers had more completely incorporated the principles into everyday practice. Nevertheless, concerns remain about the quality of probing questions used during seminars, the lack of using novels as a basis for seminars, and the lack of variety in the analyses and interpretations of seminar selections. Integration of the three columns of the Paideia program remains an ongoing issue as does articulation across grade levels.

The first cautionary tale, about a child's perspective, suggests that a new program may have very little impact on a child's life. Although this child participates in a different set of instructional activities as a function of the program, it is not always clear that the resulting instruction is cohesive or that it engages the child. Nor is it apparent that the program has affected the family's relationship with the teacher or with the school.

The second tale suggests that programs may be difficult to place in schools because schools have pre-existing constraints and priorities. The program may work well, as a program, yet its integration into school life has yet to occur; several years after implementation, the program is perceived as a daily interruption by many school staff.

Finally, the third cautionary tale highlights both the hypothesized and actual changes schools undergo when implementing a new program that depends primarily on staff development. The program, which is fairly abstract, changes as the school changes.

Chapter Three

Schools, Teachers, and Students: A Profile of Special Strategies Schools

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Overview

Chapter Two began the process of providing a detailed understanding of the workings of various special strategies in real world schools. That process will be expanded in Chapters Four, Five, Eight, and Nine.

The goal of this chapter, by contrast, is to provide a picture of the larger set of schools and classrooms in which the various special strategies are being implemented. With that goal in mind, selected characteristics of the *Special Strategies* schools are presented. In areas where other data are relevant, comparisons and contrasts are drawn between the *Special Strategies* schools and schools in two larger, more nearly nationally representative studies: *Prospects* and the *Chapter 1 Implementation Study*. Both of the latter studies are being conducted by Abt Associates.

In the majority of presentations, descriptive data on the *Special Strategies* sites will be broken down by both grade and broad program type. Data gatherers in 11 of the sites are following a cohort of students that began first grade in the fall of 1990. While the majority of those students have now completed second grade, this group will be described as the first grade cohort. At a second group of nine schools, researchers began following a cohort which was in the third grade in the fall 1990. That cohort of students completed fourth grade in the spring of 1992. They are described as the third grade cohort. Students beginning ninth grade in five schools during fall of 1990 comprise the final group. While some students have dropped out or transferred, the majority of the ninth grade cohort has now completed tenth grade.

A second dimension on which schools will be described is broad program type. Three types of programs will be presented: schoolwide projects, adjunct programs, and philosophy or research-based restructuring efforts. Comer's School Development Program, Success for All, Paideia schools, and Re:Learning/the Coalition of Essential Schools (CES) are the four types of Philosophy/Research-based programs being studied in *Special Strategies*. The two Comer and two Success for All schools are in the

first grade cohort, the two Paideia in the third, and all five schools in the ninth grade cohort are participating in the CES.

Reading Recovery (two schools, first grade), METRA and peer tutoring (one school each, both first grade), CCC (two schools, third grade), extended day (one school, first grade), and migrant summer extended year (one school, third grade) are among the adjunct programs being investigated.

Four Chapter 1 Schoolwide (third grade) and two extended year schoolwide (first grade) schools complete the list of program types-by-grades being investigated.

The data in this chapter are derived from the Spring 1991 and Spring 1992 administrations of the *Prospects* questionnaires and forms in the *Special Strategies* schools. An initial caution is important. These are large and complex data sets, involving hundreds of fields per questionnaire. Time was not adequate to allow integration of the 1991 and 1992 data sets into a full analysis. In those cases, 1991 data only are presented in this *Second Year Report*. The *Third Year Report* will reflect more complete use of the data sets. While our experience to date has been that mean scores per school or school type have rarely changed dramatically from 1991 to 1992, in a few of the variables the changes have seemed educationally significant. The data are accurate as presented, but the ongoing integration of 1991 and 1992 data sets and the addition of third year 1993 data will alter some of the findings.

The findings of this chapter include the following:

- The *Special Strategies* longitudinal and replication sites are from a great diversity of geographic and economic contexts.
- Reflecting the mandates of the *Special Strategies* contracts, 52% of the *Special Strategies* sites are urban/central city schools. By contrast 25% of Chapter 1 schools nationwide serve central city communities.
- Most *Special Strategies* schools serve populations which are at greater economic disadvantage than are the students served in typical Chapter 1 schools. Also, students in these schools tend to be more transient.
- A greater percentage of teachers in *Special Strategies* schools than in Prospects report having inadequate books and materials for their classes.
- A larger than average percentage of *Special Strategies* teachers report being able to individualize students' instruction for at least an hour a day. This trend is particularly notable in schoolwide projects.
- *Special Strategies* teachers are more likely to report that both absolute and relative levels of student achievement are "extremely important" in determining students' grades than are typical teachers.

- *Special Strategies* teachers report spending greater percentages of class time providing feedback to students than do typical teachers.

- *Special Strategies* teachers do not report spending more class time on academic instruction than do Prospects teachers. Regular classroom teachers in schoolwide and philosophy/ research-based programs tend to report higher percentages of time spent in academic interaction than do regular teachers in adjunct programs.

- *Special Strategies* schools offer an unusually broad array of opportunities for parental involvement.

- *Special Strategies* schools appear to "hold back" fewer students than is typically the case.

The Schools and Students they Serve

One cohort of students is being followed at each of 25 *Special Strategies* schools. For example, at the school Reading Recovery–A, the entire class that was in first grade during the fall 1990 semester is being followed through the spring of 1993. Exhibit 3.1 provides a breakdown of the schools by grade and program types.

Exhibit 3.1

Distribution of Schools by Program Type and Grade

Grade	Schoolwide	Philosophy/ Research-based	Adjunct
1–2	2	4	5
3–4	4	2	3
9–10		5	

The selection of sites for *Special Strategies* was guided not only by a desire to learn about a variety of innovative programs, but by the requirements of an urban and a separate suburban/rural contract. As can be seen in Exhibit 3.2, these requirements have resulted in a set of *Special Strategies* sites which heavily sample inner city schools and sample schools in urban fringe and suburban schools less heavily. The data on national averages are derived from the Chapter 1 Implementation Study (Millsap et al., 1992).

The 25 longitudinal sites are located in a total of 17 states from Connecticut to California and New Mexico to Michigan. In addition to the 25 longitudinal sites, *Special Strategies* researchers visited 16 replication sites during the spring of 1992. These replication sites were studied in much less depth.

Exhibit 3.2

Urbanicity of Special Strategies and National Samples of Chapter 1 Schools

Community Served	Special Strategies Elementary	National Elementary*	Special Strategies Secondary	National Middle/ Secondary*
Urban/ Center City	50% (N=10)	25%	40% (N=2)	26%
Urban Fringe/ Suburban	10% (N=2)	29%	20% N=1)	23%
Small Town or Rural	40% (N=8)	46%	20% (N=2)	51%
Total	*100%*	*100%*	*100%*	*100%*

*From Millsap et al., 1992, pp. 1-6

However, data from, for example, four additional Comer School Development Program sites provided invaluable insights into contextually specific implementation issues. Similarly, the research teams benefited from visiting Reading Recovery sites which were near sources of high quality, university-based technical assistance, and sites hundreds of miles removed from such regular support. Exhibit 3.3 presents the geographic diversity of longitudinal and replication sites.

Five sets of data reflecting the general characteristics of the *Special Strategies* schools and the students they serve help frame subsequent analyses. Those include the average number of students enrolled per school, average class size, the percentage of students eligible for free or reduced price lunch, the ethnic distribution of students served by *Special Strategies* schools, and student transience rates.

Many of the following descriptions use as points of comparison data from the *Prospects* study. Unless otherwise noted, third and seventh grade *Prospects* data are from the 1991 data gathering cycle, and first grade *Prospects* data are from the spring 1992 cycle. Spring 1992 was the first cycle for which first grade *Prospects* data became available. All *Prospects* data are unweighted means. Spring 1993 weighted *Prospects* data and *Special Strategies* data will be presented in the final report.

Exhibit 3.4 indicates that with the exception of the first grade schoolwide projects, *Special Strategies* schools do not serve student bodies which are notably larger or smaller than typical schools in the *Prospects* national sample. In *Prospects*, the average non-schoolwide elementary school served over 400 and less than 600 students. A similar range is reflected in the *Special Strategies* elementary sites. The

Exhibit 3.3

Geographic Distribution of Special Strategies Longitudinal and Replication Sites

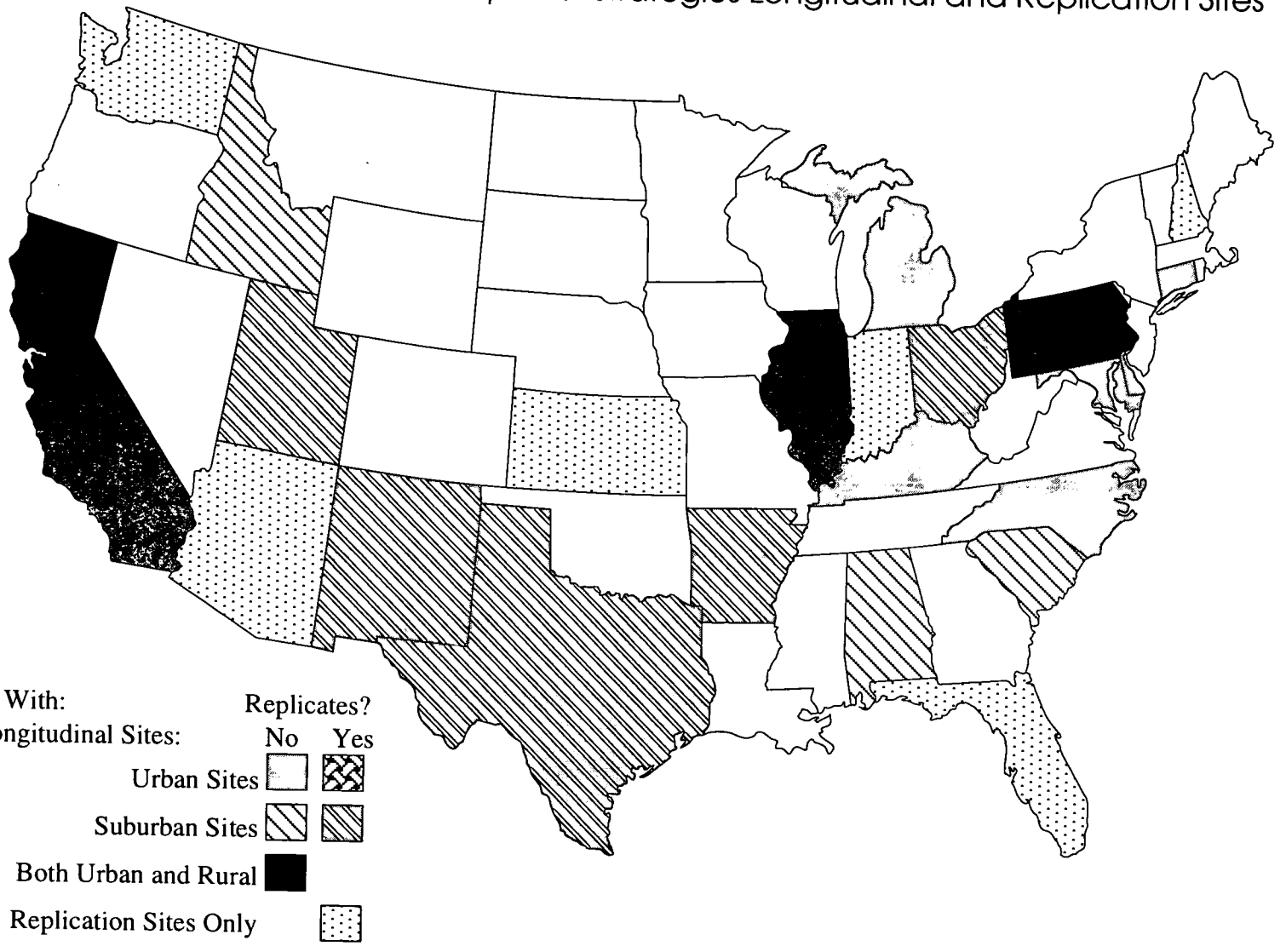


Exhibit 3.4

Average Number of Students Enrolled per School						
	Special Strategies Program Types			*Prospects School Types*		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	963	512	462	489	521	533
3	499	608	480	547	470	636
7				487	576	
9		773				

Prospects seventh grade sample is predominantly in middle and junior high schools, and those are somewhat smaller than the five *Special Strategies* high schools. However, a 600 to 1,200 student high school is not unusually large.

Class sizes within the *Special Strategies* schools are also not strikingly different from those found in the *Prospects* data base (See Exhibit 3.5). The most notable feature of the elementary sites can be found in the third grade data. This grade is most directly comparable across the two studies. On average, *Special Strategies* third grade classes have approximately two students more than classes in the *Prospects* national sample. In the cases of the *Special Strategies* third grade schoolwide projects, even though almost all sites used some of their schoolwide funds to reduce student-teacher ratios, the effects were not sufficient to reduce class sizes to those in any of the *Prospects* categories. A point expanded upon in the following pages is that *Special Strategies* study sites, on average, serve unusually disadvantaged populations. The districts in which they operate are often inhabited by many poor families. The local tax bases typically lack large numbers of well-paying industries or affluent families from which to draw support.

Exhibit 3.5

Special Strategies and *Prospects* Schools' Average Class Sizes						
	Special Strategies Program Types			*Prospects School Types*		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	23.5	24.5	23.0	26.1	23.2	24.0
3	25.3	27.5	n.a.	24.7	23.0	22.0
7				26.3	22.5	
9		23.0				

As a group, the schools in the *Special Strategies* sample serve students who are much more likely to receive free or reduced price lunch. Exhibit 3.6 indicates that in the six *Special Strategies* schoolwide projects 90+ percent of students receive free or reduced price lunch. That figure is slightly above the 86.1% average for the schoolwide projects in Prospects, and much higher than the average for elementary and secondary non-schoolwide Chapter 1 schools in *Prospects*. As a point of further contrast, *Prospects* elementary schools which receive no Chapter 1 services average approximately 26% eligibility for free or reduced-price lunch, and seventh grade schools with no Chapter 1 services average 24.4% free or reduced price lunch.

Similarly, the *Special Strategies* first grade philosophy/research-based programs average 86 percent free lunch, and the third grade philosophy/research-based programs average 72.5 percent. The majority of these sites could operate as SWPs, and some exercise that option. Schools in the first grade adjunct programs average 44.5 percent free or reduced-price lunches, and third grade programs average 79 percent, high enough to be eligible for schoolwide status.

Exhibit 3.6

Percentage of Students Eligible for Free or Reduced Price Lunch

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	90.0%	86.0%	44.5%	37.5%	58.9%	85.9%
3	91.3%	72.5%	79.0%	15.7%	44.4%	86.3%
7				24.4%	43.9%	
9		36.7%				

Data on student ethnicity offer a similar picture. As can be seen in Exhibit 3.7, the average percentage of Anglo students in non-Chapter 1 Prospects schools approaches 80 percent. In *Prospects* Chapter 1 not-Schoolwide schools, Anglos represent over 70 percent of all students, and in the average schoolwide project 18 percent of the students are of Anglo-European descent.

Whereas averages of 5.1 to 12.7 percent of students in the *Prospects* non-schoolwide sites are of African-American heritages, those numbers range from 10.5 to 73 percent in the non-schoolwide and 46 to 74.7 percent in schoolwide *Special Strategies* sites. Similarly, in the *Special Strategies* first grade schoolwide projects and first and third grade adjunct programs, Hispanic representation ranges up to five times above *Prospects* averages. (See Exhibits 3.7 to 3.10)

Exhibit 3.7

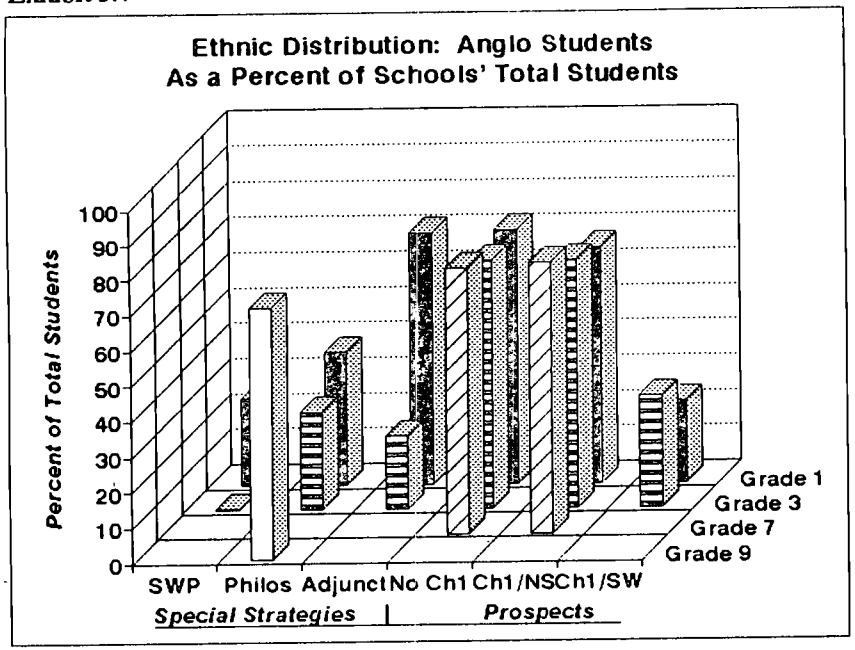


Exhibit 3.8

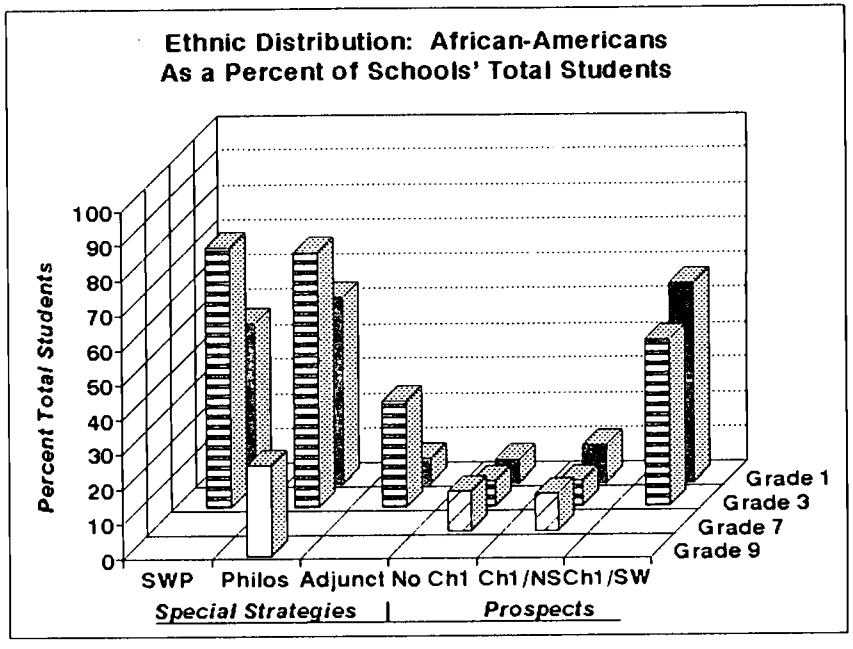


Exhibit 3.9

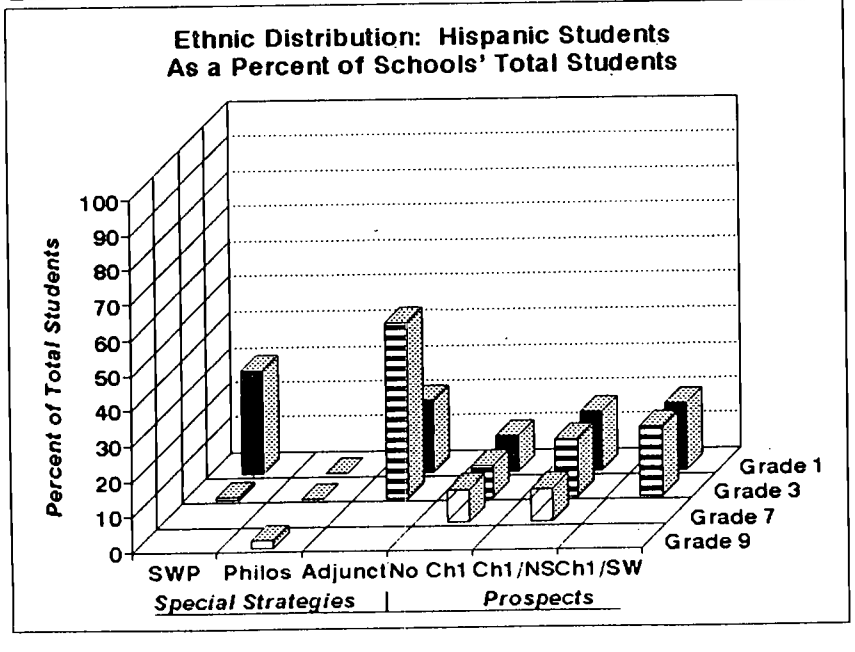
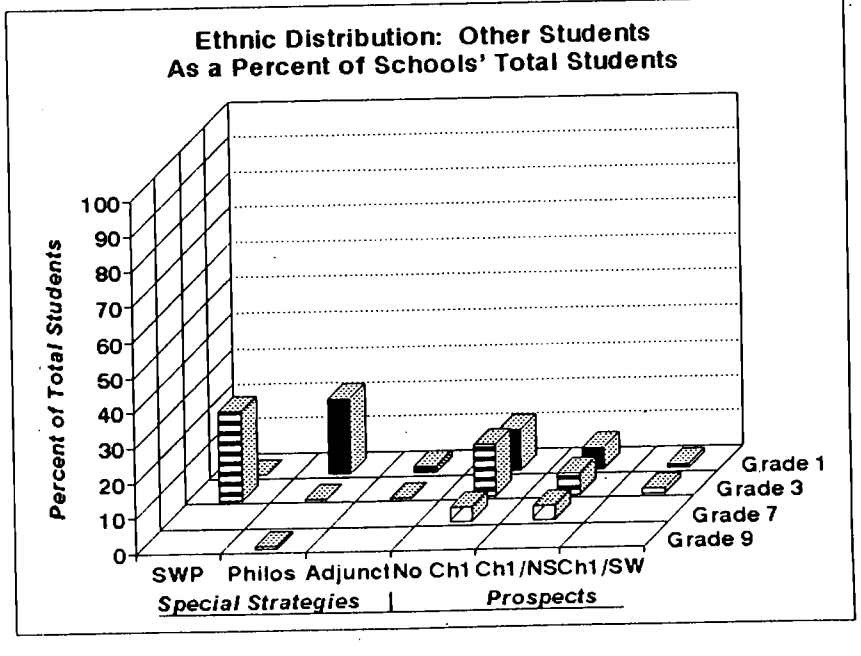


Exhibit 3.10



A final important characteristic of the populations being served by *Special Strategies* schools is transience rates. The task of providing meaningful services to students is more challenging when larger percentages of students enter or depart the school and community on a regular basis. Establishing connections between a teacher and a student takes time. In extremely high transience situations, some teachers may become hesitant to make intellectual and emotional commitments to students who, in all probability, will be leaving during the school year. As can be seen in Exhibit 3.11, the within-school-year transfer rate in *Special Strategies* schools is typically larger and often double the rates found in *Prospects* schools. Moreover, Exhibit 3.12 indicates that over-the-summer transfers are also typically higher than in the more nationally representative *Prospects* sample of schools. As a group, the *Special Strategies* schools are unusually challenging sites in which to teach.

Exhibit 3.11

Mean Percent of Students Transferring Out of School During the School Year

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	27.7	19.8	12.9	12.1	14.5	21.0
3	20.0	15.5	28.0	9.8	10.3	13.6
7				9.5	9.4	
9		9.2				

Exhibit 3.12

Mean Percent of Students Transferring Out of School Over the Summer

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	n.a.	7.7	15.4	10.1	10.0	15.0
3	13.7	7.4	28.8	6.5	7.4	8.5
7				4.1	6.1	
9		11.6				

In summary, the *Special Strategies* schools are drawn from a diverse set of programs. Seventeen states contributed sites to the longitudinal sample and six additional states contributed to the replication sites. Inner city schools are heavily sampled in *Special Strategies*. With some exceptions, the *Special Strategies* schools are not notably larger or smaller than typical American schools.

The student populations being served are highly disadvantaged. *Special Strategies* schools serve unusually high percentages of students who receive free or reduced-price lunches. African-American, Hispanic, and Native American children are highly represented in the *Special Strategies* schools. Moreover, families being served by the *Special Strategies* schools are less likely to remain at one school through a full school year or over a summer.

The Faculties

Backgrounds of Principals and Teachers

Length of current principals' tenure was not a unique feature of the *Special Strategies* schools. Exhibit 3.13 indicates that on average, the *Special Strategies* principals had served in their schools for between four and eight years, including the first year of the study. Principals in the *Prospects* schools had similar patterns of service. Two other characteristics of the principals, however, were unusual. As can be seen in Exhibit 3.14, the *Special Strategies* principals were unusually likely to hold educational specialist (post-masters) or doctoral degrees. Similarly, in response to a series of questions which are not easily presented in tabular form, *Special Strategies* principals were almost unanimous in reporting that in the previous three years they had received training in conducting needs assessments, developing programs, and measuring program effects. In the larger *Prospects* sample, affirmative response rates to those items ranged from 20 to 70 percent, depending on the specific training. The *Special Strategies* principals were unusually well educated and thoroughly updated on education-relevant managerial skills.

Exhibit 3.13

Principals' Mean Years of Service at Their Current Schools

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	4.0	8.2	4.3	6.8	6.1	6.4
3	5.0	5.0	3.5	4.4	6.2	4.7
7				8.2	5.8	
9		7.5				

Exhibit 3.14

Percent of Principals Holding Educational Specialist or Doctorate Degrees						
	Special Strategies Program Types			*Prospects School Types*		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	0	80	25	58.3	40.4	57.1
3	100	100	50	58.8	47.6	71.5
7				42.8	49.4	
9		100				

Descriptive data from teachers present a somewhat contrasting picture. Before examining that data, the reader should be aware that teacher data throughout this chapter are drawn from the Spring 1992 *Prospects* surveys, and that just over 50% of *Special Strategies* teachers responded. Response rates for 1992 were higher, and the data may be more representative of teachers in the various special strategies.

Special Strategies teachers reported a few more years experience than did *Prospects* teachers. As Exhibit 3.15 indicates, the net effects are not large, but with the exception of third grade schoolwide project teachers, they are fairly broad. Unlike the principals, *Special Strategies* teachers report having completed no more formal education than *Prospects* teachers. The typical response from all grades and nearly all program types was that teachers had completed at least one year of post-Baccalaureate education. Fewer than half the teachers in any group had completed a masters degree or higher.

Exhibit 3.15

Teachers' Average Years of Classroom Teaching Experience						
	Special Strategies Program Types			*Prospects School Types*		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	19.3	15.3	14.2	14.5	12.8	13.8
3	8.0	19.3	16.4	15.8	14.2	13.1
7				12.3	14.1	
9		15.5				

Surprisingly, *Special Strategies* teachers did not report having received significantly more in-service education during the preceding year than was reported by teachers in the more nationally representative *Prospects* sample. Exhibit 3.16 indicates that only in the third grade schoolwide and adjunct projects, and in the ninth grade (CES) projects, did the majorities of *Special Strategies* teachers report receiving more than 15 hours of in-service education in the previous year. In fact, in first grade *Special Strategies* schools, teachers were less likely to report having received extensive staff development during the previous year.

Whereas *Special Strategies* principals reported having no more years of administrative experience and more formal education and recent training than their *Prospects* principal peers, *Special Strategies* teachers reported almost the opposite. They reported more years classroom experience, no more formal education, and even slightly less staff development over the previous year. Combined with qualitative data from various chapters in the first and second year reports, the staff development data appears to indicate that both program developers and local administrators have underestimated the effort required to achieve and sustain full implementation of the various *Special Strategies*.

Exhibit 3.16

Percentages of Teachers Receiving More Than 15 Hours of Staff Development During the School Year

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	33.3%	12.5%	30.0%	63.9%	60.2%	79.8%
3	57.1%	33.3%	80.0%	60.8%	55.2%	62.3%
7				49.2%	45.3%	
9		57.1%				

Teacher Attitudes and Perceptions of Classrooms

It is a truism of modern education that "what gets measured matters." A series of questions in the *Prospects Teacher Questionnaire* asks teachers to place a level of importance on various components of academic performance relative to setting students' grades. Responses could range from "extremely important" to "not important." Exhibits 3.17 through 3.20 note the percentages of teachers who responded "extremely important" to four areas of academic activity. The areas are achievement relative to classmates, absolute levels of achievement, improvement or progress, and class participation. One could

imagine one group of teachers believing that a particular one of the above performance areas was especially important, and that others were less so. Yet what is revealed in Exhibits 3.17 through 3.20 is a tendency for *Special Strategies* teachers, especially third grade *Special Strategies* teachers, to report that *all* of these areas are more important than did *Prospects* teachers. Regardless of the form of the strategy, one impact of being in a special strategy appears to be a heightened sense of the importance of academics and of teacher-given grades.

Exhibit 3.17

Teacher's Evaluation of Importance in Setting Grades:
"Achievement Relative to Classmates is *Extremely* Important"

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	33.3%	12.5%	10.0%	16.5%	16.2%	21.5%
3	42.9%	33.3%	20.0%	7.5%	10.8%	24.0%
7				14.3%	17.4%	
9		14.3%				

Exhibit 3.18

Teacher's Evaluation of Importance in Setting Grades:
"Absolute Level of Achievement Is *Extremely* Important"

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	33.3%	37.5%	30.0%	36.4%	39.3%	35.1%
3	42.9%	66.7%	40.0%	19.9%	33.4%	35.0%
7				35.6%	29.4%	
9		50.0%				

Exhibit 3.19

Teacher's Evaluation of Importance in Setting Grades:
"Improvement or Progress Is *Extremely* Important"

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	66.7%	62.5%	70.0%	44.8%	52.1%	50.5%
3	28.6%	66.7%	60.0%	48.3%	40.7%	50.1%
7				34.4%	37.6%	
9		28.6%				

Exhibit 3.20

Teacher's Evaluation of Importance in Setting Grades:
"Class Participation Is *Extremely* Important"

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	0.0%	25.0%	30.0%	35.5%	35.1%	41.9%
3	42.9%	66.7%	40.0%	19.2%	32.2%	40.6%
7				21.7%	31.7%	
9		28.6%				

Issues in Instruction: Second Year Exploratory Analyses

The nexus of achievement gain occurs at the intersections among students, curricula and instruction. In *Special Strategies*, these are discussed as Quality, Appropriateness, Incentive structures, and Time for instruction (QAIT).

This section presents exploratory analyses, many of which are drawn from 1991 Prospects data. Readers should be aware that teacher response rates on *Prospects* 1991 were uneven, ranging from 0% to 100% at *Special Strategies* schools.

It is difficult for a teacher to provide high quality instruction if he or she lacks sufficient materials to meet most students' instructional needs. Recall that as a group *Special Strategies* schools serve unusually large percentages of disadvantaged students who are living in disadvantaged communities. Exhibit 3.21 provides evidence of the effects of this level of poverty. In spite of receiving additional Chapter 1 funds, the *Special Strategies* schoolwide project teachers are the most likely of any group in *Special Strategies* or *Prospects* to report they lack adequate materials.

Exhibit 3.21

Percentage of Teachers Who State That in Their Classrooms Overall Materials Are Sufficient to Meet Most Students' Instructional Needs

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	66.7%	87.5%	70.0%	84.8%	78.6%	72.7%
3	57.1%	66.7%	80.0%	87.8%	75.7%	76.8%
7				72.4%	78.0%	
9		64.3%				

At first blush this data might seem difficult to understand. Schoolwide projects receive extra funding, and distribute it as the administration and faculty see fit. Why would shortages be more noticeable? In the School Characteristics questionnaire, principals were asked to list ways in which Chapter 1 dollars were spent. In the *Prospects* sample, the top three responses were computers (64-70%, depending on grade level), instructional materials which allowed for independent learning (39-48%), and trade books (38-39%). In the *Special Strategies* sites, the top responses were trade books (100% in most cells), computers and software (50-100%), and independent learning materials. In other words, the *Special Strategies* sites, and particularly the schoolwide sites, were likely to be spending more Chapter 1 money on trade books than were schools serving less impoverished populations. Yet, the case studies do not indicate *Special Strategies* schools awash in trade books. Rather, they indicate a dearth of most materials. In the high poverty schoolwide projects, Chapter 1 is having to provide materials which in more affluent contexts are typically supplied out of local funds. Providing quality instruction is extremely difficult in the absence of adequate materials.

A second area of instructional importance is appropriateness of instructional level. Students learn most when materials presented are neither completely redundant to their knowledge or require prior knowledge which they lack. The purpose of individualized instruction is to structure learning time so that instruction is at the appropriate level for each student. As can be seen in Exhibit 3.22, teachers in *Special Strategies* sites generally and in schoolwide projects particularly were more likely than *Prospects* teachers to report providing at least one hour per day of individualized instructional time to students.

Exhibit 3.22

Teachers Reported Use of Individualized Instruction for One Hour or More per Day

	Special Strategies Program Types			*Prospects School Types*		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	66.7	25.0	20.0%	22.7%	27.3%	42.0%
3	57.1%	33.3%	40.0%	15.3%	21.2%	29.9%
7				38.8%	30.0%	
9		42.9%				

A confounding report comes from the same teachers' reports of time spent monitoring students' progress (see Exhibit 3.23). If teachers do not allocate time to monitoring individual student's progress, "individualized instruction" can rapidly turn into undifferentiated seatwork of the type described qualitatively in Chapter Five.

The picture is further confounded in Exhibit 3.24. *Special Strategies* teachers generally, and particularly those working in philosophy/research-based and third grade adjunct programs (e.g., CCC), report spending significantly higher percentages of their time providing feedback to students than do teachers in the *Prospects* sample. The combination of additional time spent providing feedback and the increased emphasis on relative and absolute academic achievement gain noted earlier might be expected to result in students having high incentives to learn. Yet monitoring, individualizing, and feedback would be expected to go hand in hand, and among the *Special Strategies* teachers, they did not.

Exhibit 3.23

Teacher Percent Academic Interaction in a Typical Day: Monitoring Students

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	25.0%	23.4%	28.6%	20.9%	22.7%	23.6%
3	24.3%	16.7%	21.0%	21.2%	25.2%	21.4%
7				26.1%	26.5%	
9		20.7%				

Exhibit 3.24

Teacher Percent Academic Interaction in a Typical Day: Providing Feedback

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	15.0%	20.3%	14.4%	11.7%	13.3%	13.3%
3	14.3%	20.0%	23.0%	13.1%	13.5%	11.7%
7				11.9%	12.7%	
9		18.2%				

The final instructional variable being examined in *Special Strategies* is time. Two of the more quantifiable measures of time are time potentially available and time used for academic interaction. Student attendance sets the upper limit on time available for instruction. Exhibit 3.25 presents data on *Prospects* and *Special Strategies* schools' average daily attendance (ADA). In the national *Prospects* sample, ADA ranged between 90.0 and 93.3 percent for the various cells. *Special Strategies* schools reported rates which were, on average, slightly higher.

Exhibit 3.25

Schools' Reported Average Daily Attendance						
	Special Strategies Program Types			***Prospects School Types***		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1 3	93.5% 92.75	90.2% 96.2%	98.7% n.a.	92.0% 93.3%	91.4% 92.8%	90.0%
7 9		90.9%				

Similarly, when teachers were asked to report the percent of classroom time they devoted to academic interaction, the patterns in *Special Strategies* sites were not notably different from *Prospects* sites (see Exhibit 3.26).

Exhibit 3.26

Teacher Percent Classroom Time in a Typical Day: Academic Interaction						
	Special Strategies Program Types			***Prospects School Types***		
Grade	**SWP**	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1 3	77.7% 72.9%	66.6% 65.0%	61.7% 53.4%	70.9% 68.5%	69.0% 70.0%	73.9% 74.2%
7 9		75.9%		72.8%	70.5%	

The instructional picture of *Special Strategies* sites that emerges from these analyses is mixed. The schools tend to lack adequate instructional materials, even though the purchase of trade books and individualized instructional materials rank high on schools' Chapter 1 purchase lists. More *Special*

Strategies teachers report individualized instructional time and more time providing academic feedback to students, but *Special Strategies* teachers report no more time monitoring students' work than do *Prospects* teachers. *Special Strategies* teachers report more time spent on providing feedback and more importance placed on providing academic feedback including grades. *Special Strategies* schools do not achieve significantly higher attendance rates, nor do *Special Strategies* teachers report using much more of the available class time for academic interaction.

While ongoing analytic efforts may provide a clearer picture, it is noteworthy that this quantitative picture has some overlap with the more qualitative pictures found elsewhere in this report, especially in Chapter Five. It appears that teachers in the *Special Strategies* schools have not yet had adequate training and lack sufficient skills to clearly differentiate instruction in the majority of these schools from that found in typical Chapter 1 and other schools.

Parent Involvement Opportunities

A major thrust of several of the *Special Strategies* concerns parent involvement. At the various grades, *Special Strategies* principals reported that virtually 100% of schools offered parents opportunities to volunteer in the schools (vs. 60-83% in *Prospects* schools). Nearly 100% of schoolwide projects, 90% of philosophy/research-based and 80% of adjunct programs reported having a parent advisory committee (vs. 75-80% in *Prospects*). Nearly all *Special Strategies* elementary schools reported having home-based instructional alternatives in place, and over three quarters reported having a designated parent liaison. These numbers are all above their *Prospects* comparable groups.

This data meshes well with the qualitative data examined elsewhere in this report. Increased parent involvement has been a major national focus in Chapter 1, and the *Special Strategies* sites appear to be having unusual levels of success with their efforts.

Reduced Retention Rate as an Intended, Academically-Related Outcome

If special strategies are succeeding, one logical academically-related outcome should be reduced retention rates. An item on the *Prospects School Characteristics Questionnaire* asks school personnel to indicate retention rates. As can be seen in Exhibit 3.27, schools in *Special Strategies* are "holding back" notably fewer elementary school students than are their *Prospects* peers. The data at both first and third grades present a clear contrast.

Exhibit 3.27

Schools' Reports of Student Retention Rates

Grade	*Special Strategies Program Types*			*Prospects School Types*		
	SWP	**Philosophy/ Research-Based**	**Adjunct**	**No Chapter 1**	**Chapter 1 not SWP**	**Chapter 1 SWP**
1	0.5%	n.a.	0.5%	2.7%	4.6%	5.6%
3	0.0%	0.8%	0.5%	0.7%	1.6%	3.7%
7				2.3%	2.7%	
9		n.a.				

Summary

This chapter presents tentative analyses that could be altered by ongoing analyses and by analyses of 1993 data sets. However, the currently available analyses are suggestive.

They indicate that the *Special Strategies* sites serve highly disadvantaged students and communities. Teachers in *Special Strategies* schools are likely to report inadequate supplies of books and materials. A large percentage of *Special Strategies* teachers report being able to individualize students' instruction and to provide feedback to students. Yet *Special Strategies* teachers do not report spending unusually large portions of class time monitoring students' progress. Especially at third grade, *Special Strategies* teachers were much more likely to report that relative and absolute levels of academic achievement were "extremely important" in assigning grades to students. The *Special Strategies* schools report offering an unusually broad array of opportunities for parental involvement, and this report is verified in the case studies. Finally, in keeping with the stated goals of many of the programs under investigation, *Special Strategies* elementary schools report "holding back" or "retaining" significantly fewer students than do schools in the more nationally representative *Prospects* sample.

Chapter Four

Special Strategies as Implemented in Schools and Classrooms

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Abt Associates Inc.

Overview

The purpose of this chapter is to compare the intended special strategy with its actual implementation in schools and classrooms. For each strategy three questions are addressed:

- What are the desired components of the strategy? What instructional and non-instructional components are to be in place for the strategy to be fully implemented?
- What components are actually in place? How do they vary across schools and across time as students proceed through their school years?
- How is the special strategy implemented in the classroom? How is it reflected in the instructional services provided to students?

The ten special strategies are organized into the three categories previously described — philosophical/research-based approaches, schoolwide projects, and adjunct programs. In addition, because we focus on cohorts of students, changes in programs over time are viewed from the students' perspective as students move from the 1990-91 academic year through the 1991-92 academic year.

Because philosophical approaches typically involve broad-based curricular reform and/or significant school restructuring, both instructional and non-instructional components are examined in detail. For schoolwide projects, we are especially concerned with the changes in curriculum and instruction brought about by reducing class size and eliminating (or reducing) supplemental instruction. For those strategies designed to supplement regular classroom instruction, the emphasis is on the extent to which students receive consistent (or contradictory) reinforcement about learning processes in the adjunct program and the classroom.

The chapter closes with two special topics that characterize most special strategies: the importance of staff development and the involvement of parents in education.

Readers interested in a specific strategy are encouraged to examine the detailed exhibits provided on each strategy and school. The exhibits are self-standing and may be read independent of the text. For the most part, the exhibits read from left to right on degree of implementation, with site A of each strategy generally more completely implemented than site B. The "desired components" are derived from developer materials as well as from what the sites told us were their intended programs. The "observed components" are those recorded and confirmed by the field teams. Readers should also note that more detail on the developer's ideal program will be provided in the final report.

Preliminary findings on the implementation of each strategy include the following:

- Across the high schools in the Coalition of Essential Schools (CES), the most well-implemented program features are a positive and caring school climate and the active participation of students in active learning with other students. Less well implemented are the curriculum-related components of CES schools, such as interdisciplinary curricula, more time on fewer subjects and a focus on "essential" questions.

- For the two Paideia schools, children continue to receive the Socratic seminars designed to develop students' critical thinking skills. The seminars are the cornerstone of the Paideia program. The individual coaching of students to reinforce their skills was less in evidence, in part because both schools had teachers new to the program who were not yet well trained.

- The Comer School Development Program is designed to create a shared decision-making process for faculty, administration, and parents, to bring the community into the school, and to create a curriculum for the emotional, social, and psychological needs of children. One school is a full-fledged implementation of Comer principles that continues to elaborate on its core program. The second school, while enjoying significant parent participation, has yet to implement desired components in a meaningful way.

- Success for All is a structured and intensive early intervention program with a focus on basic language development through homogeneous ability reading groups, one-on-one tutoring, cooperative learning by students, and periodic assessment of students. One school has incorporated virtually all aspects of the Success for All program into its instruction; its changes represent continued customization of the program. The second school altered most program components when it temporarily lost its standing as a Chapter 1 schoolwide project.

- Among their objectives, many schoolwide projects reduced class size and eliminated (or reduced) limited pullout programs so the regular classroom teacher could provide attention to students' personal needs, individualized instruction to students, instruction in basic and advanced skills, and an integrated curriculum. Through our observations in third and fourth grade classrooms in four schoolwide projects, we found little evidence that these objectives have been reached, other than an increased awareness of students' personal needs that may affect their ability to learn.

From our observations in first and second grade classrooms in two other schoolwide projects, we found that teachers for the most part were aware of students' needs, sought to individualize instruction, and provided an integrated curriculum. Critical thinking skills were encouraged in most but not all classrooms. In one school, the need for bilingual staff has not kept pace with the rapid increase in the number of monolingual Spanish-speaking children.

- Four adjunct programs are represented in the study: Reading Recovery, computer-assisted instruction (CCC), tutoring, and extended time. For the most part, each school demonstrates fidelity to the strategy; students receive the adjunct curriculum as it is designed. Continuing issues are integration of the adjunct curriculum into the regular classroom (such as in Reading Recovery where students are taught specific strategies for learning to read) and losses of instructional time to transition from one setting to another (as in coming and going to a computer laboratory).

- Ongoing staff development is a necessary component for the successful implementation of special strategies. While the type and amount of in-service vary with the strategy, all strategies require principals and teachers (and in some cases parents) to perform in ways that differ from their current practice.

- Most special strategies are making significant efforts to increase the role of parents in the school and in their children's education. Strategies in 19 of the 25 schools in our study have parent involvement as a key objective.

Philosophical/Research-based Approaches

Philosophical/Research-based approaches, represented here by Coalition of Essential Schools (CES), Paideia, and Comer, offer the greatest challenge to traditional schooling and affect at least two of the following three core areas: the decision-making structure of the school, instructional methods, and the content of the core curriculum. The CES schools and Paideia schools both support fundamental change in teaching methods and the core curriculum of schools. Comer schools urge fundamental changes in the decision-making structure of schools and in expanded services and curricula for children. They also propose guiding principles for implementation rather than explicit curriculum or instructional materials.

Success for All is also represented in this category, because of the magnitude of changes it can bring about in school curriculum. It differs from the others because its prescribed curriculum content is typically operated within a Chapter 1 schoolwide project context.

Coalition of Essential Schools

The Coalition of Essential Schools, building upon Theodore Sizer's *Horace's Compromise,* rests on the belief that secondary schools are too large, too departmentalized, too routinized, too dependent upon passive learning, and generally too impersonal. In an attempt to resolve these problems, the principles for CES schools include interdisciplinary teaching, personalizing teaching and learning

(including a decreased teacher-student ratio), and attempts to focus learning on important usable skills or knowledge (that is, on "essential" skills) whose mastery is assessed through portfolios or demonstrations. The principles such as "student as worker" and "a tone of decency" are vague by design, so that teachers and schools can apply the CES principles to their particular circumstances.

The desired components of the CES schools are compared with those observed in each of the five CES high schools visited. Urban schools are presented in Exhibit 4.1, while the suburban and rural schools are described in Exhibit 4.2. Shifting the school climate to one of trust and shared values is clearly evident in four of the five CES high schools. A school climate characterized by positive and shared concern is reflected in the following example.

> In the middle of one particularly "bad" teaching situation where the class had gotten more and more out of control and the teacher's emotions were escalating along with the chaos in the room, one very large high school boy got out of his chair, walked up to the teacher, gave her a very big hug, and quietly said to her: "It's okay, Ms. . . . ." He then continued around the room and went back to his seat. There was a visible (and audible) release of tension from the teacher and the class as they settled down and began to support her with their attention and respect.

Also common through most of the CES high schools was evidence of students actively engaged in the learning process through group projects with other students. Evidence of cooperative learning was observed in four of the five CES schools.

Curriculum-related components of CES schools (such as interdisciplinary curricula, more time on fewer subjects, and focus on "essential" questions) were less well implemented. When we began observing ninth graders in the CES schools, students in three of the five high schools received an interdisciplinary curriculum and team teaching. By the following year, only CES-D continued to provide an interdisciplinary curriculum (English and Social Studies) to the same students as tenth graders. One- to two-hour blocks of instruction continued only in CES-A and informally in CES-D. In most CES schools, the teacher/student ratio within classrooms was relatively low (and even lower as the students became tenth graders), but only one CES school (CES-D) had reduced the total number of students that teachers saw per day from the typical 125 to 80, the number recommended by Sizer. Two of the schools (CES–A and –B) frequently evaluate student work through demonstrations.

CES-A has the best established program throughout all high school grades. When our cohort of students was in the ninth grade, they were exposed to what was probably the strongest program among the five in our study. In 1991-92, the principal sought to expand it from its established place in the ninth grade into other grades in the school. He met resistance, however, from teachers who had not bought into the program's philosophy, including the chairperson and some members of the School Restructuring

Exhibit 4.1

Coalition of Essential Schools in Urban Settings

Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components		
	CES-A	CES-B	CES-C
Instruction			
Tone of trust and shared values/high expectations of students	As students were both 9th graders and 10th graders, students appear to accept and understand staff expectations regarding behavior and dress. Teachers encourage students to respect each other. Teachers have a strong sense of commitment to student learning and are very clear about their high expectations. A common motto for students is: "You make the school what it is and what it can become." Teachers also tell students that they hold them responsible for their actions.	A tone of trust and shared values is the most pervasive attitude and can be felt and observed in the entire school both in teacher-teacher interactions and in teacher-student interactions. Instructions are characterized by informal banter, sense of humor, and sincere acceptance of each other. The caring for students is more visibly expressed than high expectations for student achievement.	Much time is spent counseling and talking to students about respecting each other and the teachers, including using Sizer's words of a "tone of decency." Some but not all students and teachers share an understanding of program goals.

Exhibit 4.1 *(continued)*

Coalition of Essential Schools in Urban Settings
Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components		
	CES-A	CES-B	CES-C
Instruction (continued)			
Interdisciplinary curriculum and team teaching	For 9th graders, English and Civics were planned and taught by team teachers, as were Social Studies and Science. When these students reached the 10th grade, no team teaching or interdisciplinary curriculum was observed.	For 9th graders, all six teachers worked with a cadre of 125 students to provide an integrated program throughout their curriculum. Some block scheduling was used for interdisciplinary units. When these students became 10th graders, the team concept and interdisciplinary teams were not available.	While neither team teaching nor an interdisciplinary curriculum were observed for the 9th graders last year, there was some team teaching of English and World Civilization for these students as 10th graders.
Small class size and frequent student-teacher interaction	For 9th graders, average class size was 26 students, with each teacher seeing 116 students a day. In the 10th grade the next year, the average class size dropped to 22 students.	For all years, average class size was 20-27 students. Each teacher sees about 125 students daily. But for the 9th grade students, a cadre of 6 teachers worked with the 125 students. When they were 10th and 11th graders, the team concept was gone.	For 9th graders, 12-16 students were in core academic subjects. Core academic subjects for them in the 10th grade contained only 8-13 students.

Exhibit 4.1 *(continued)*

Coalition of Essential Schools in Urban Settings
Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components		
	CES-A	CES-B	CES-C
Instruction (continued)			
In-depth coverage of "essential" questions and more time on fewer subjects	For 9th graders, the entire curriculum was linked to "essential" questions that were tied into curriculum objectives and knowledge content. Most learning took place in two two-hour blocks (one on math-science and one on English-social studies). As 10th graders, the blocked schedule of 96 to 100 minutes remained, but was not focused on "essential" questions.	As 9th graders in the Bridge program, students often had two period blocks of 100 minutes each, with content focused on the larger "essential" questions. As 10th graders, students were in a traditional setting of 6 periods of 50 minutes each, with typical high school curriculum.	No in-depth coverage of essential questions. Classes were grouped in 2-hour time blocks for 9th graders. For 10th graders, there was a mix of 1 hour and 1.5 hour classes.
Student as an active learner and cooperative learning	In both the 9th and 10th grades, teachers coach and guide students in special projects, so students engage in problem solving and independent thinking. Less emphasis on lecturing and more on didactic and Socratic discussion both years.	The 9th grade Bridge program emphasized active learning by students, with students working cooperatively in groups on problems. When these students reached the 10th and 11th grades, very little of this was observed. It varied with the teaching styles of individual teachers.	In both years, the students were often engaged in either paired or individual seatwork. Some active cooperative learning in the 9th grade science class, and a few examples of peer tutoring were seen as the students were 10th graders.

Exhibit 4.1 *(continued)*

Coalition of Essential Schools in Urban Settings
Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components		
	CES-A	CES-B	CES-C
Instruction (continued)			
Teacher as instructor, counselor and manager	In the 9th grade, teachers counseled students on an as-needed basis. Teachers were aware of and showed concern for those students having difficult home situations. When the students reached 10th grade, the social studies teacher developed a "Self Esteem Center" for students.	For students in the 9th grade Bridge program, the six teachers on the team were able to emphasize affective concerns. The daily 30-minute period of teacher-guided assistance (TGA) highlighted the counseling role somewhat. When the students reached the 10th grade, the absence of the cadre of teachers limited the multiple roles for teachers, although some continues through TGA.	In the 9th grade, teachers took a special interest in the personal welfare of students. For the 10th graders, teachers counsel students about future plans.
Community of learners	The teachers and students see themselves as working together to improve their learning. They were proud of the school and believed that if they do well the school can maintain its reputation.	A caring environment for students, but little observed as a community of learners between teachers and students.	Not observed much in either year.

Exhibit 4.1 *(continued)*

Coalition of Essential Schools in Urban Settings

Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components		
	CES-A	CES-B	CES-C
Instruction (continued)			
Assessment through demonstration	Student exhibitions observed at all grade levels, with required demonstrations in 11th and 12th grades.	Student projects were frequently observed during the 9th grade Bridge program. Also observed as students were in the 10th grade through such projects as mock trials in social studies, science laboratory activities, and rewriting movie scenes as playwriters.	Assessment through demonstration not observed.
Non-instruction			
Staff development in at least one professional development activity per year	Each program teacher receives summer training at Brown University; new teachers in 10th grade have had less exposure than 9th grade teachers.	Substantial staff development available. Staff received training through Brown University, Gheens Academy and some through a local university.	Most teachers are new to the program in 1991-92 and have received no staff development.
Staff commitment of their own time	During the 9th grade, teachers took students to ball games and other activities and sometimes to their homes on weekends. During the 10th grade, one teacher developed a Student Self-Esteem Center using her own funds.	In both years, many curricular changes and concepts have required many extra hours of staff time. The first year, there was some extra planning time during the day; but there were no extra planning periods during the second year.	Ninth grade teachers spent considerable extra time with students. Investment of extra time varies among the 10th grade teachers.

Exhibit 4.1 *(continued)*

Coalition of Essential Schools in Urban Settings
Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components		
	CES-A	CES-B	CES-C
Non-instruction (continued)			
Parent involvement	Parents attend such functions as student exhibits, and parent and community support for the school is evidenced by their convincing the school board to renovate the building rather than demolish it.	Substantial parent involvement in the school all three years. Parents participate on committees, serve as after school tutors and volunteers, plan and participate in award banquets, and attend various other functions.	During 9th grade, Phoenix Team teachers called parents once a month; less formal contact in 10th grade. Parents connected with the school-within-a-school are supportive.

Exhibit 4.2

Coalition of Essential Schools in Suburban and Rural Settings

Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components	
	CES-D	CES-E
Instruction		
Tone of trust and shared values/high expectations of students	Teachers report higher expectations for students and some trust building activity. Unclear if values are shared.	Little evidence of higher expectations for students or of trust building.
Interdisciplinary curriculum and team teaching	On both the 9th and 10th grade teams, groups of four teachers (a team) meet daily to discuss plans for their group of 80 students. Less planning time for 10th graders than 9th graders. Curricula and tasks in English and social studies are often highly integrated.	Only scattered evidence of interdisciplinary planning or team teaching, in part due to scheduling problems.
Small class size and frequent student teacher interaction	Each teacher on the team sees 80 students a day. Frequent student-teacher interactions.	Each teacher sees 160 students a day in this fiscally strapped school district. Little student-teacher interaction.
In-depth coverage of "essential" questions and more time on fewer subjects	Some evidence of "essential" questions but textbooks tend to drive the curriculum, especially in math and science. More time on fewer subjects sometimes arranged by teachers informally. The "flex" period where students may go to any of the four teachers to study or gain additional tutoring is seen as a real plus to the program.	Textbooks dominate the curriculum and all classes are 47 minutes long. Time appears quite fractured and clock-driven. Few non-college preparatory students took math courses in 10th grade, although one could argue math is an "essential" skill.

Exhibit 4.2 *(continued)*

Coalition of Essential Schools in Suburban and Rural Settings
Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components	
	CES-D	CES-E
Instruction (continued)		
Student as an active learner and cooperative learning	Students work as teams on many English and social studies projects (e.g., mock trials about forced migration of Native Americans). Some staff have taken semester-long training in cooperative learning techniques.	While did not observe students engaged in extended projects, the products of such work were available. Cooperative learning was rarely observed, although several teachers have taken cooperative learning workshops.
Teacher as instructor, counselor and manager	Teachers focus on academic lives of students, following a case management approach for students doing poorly.	Teachers know students because all live in this small town; no evidence that program has expanded the role of teachers.
Community of learners	Students and faculty appear to enjoy working together on projects, and the new principal is committed to this concept.	No consistent evidence of a community of learners between faculty and students. Threatened cuts in personnel due to fiscal ills have discouraged staff.
Assessment through demonstration	Occasional evidence of assessment through demonstration.	Little evidence of assessment through demonstration.
Non-instruction		
Staff development in at least one professional development activity a year	The two teams of four teachers each have had substantial staff development beyond one activity per year. However, about half of the faculty have not participated in any Sizer-related activities.	More than half of the faculty have participated in CES-sponsored activities, including trips to Brown University, to other schools, and to regional training.

Exhibit 4.2 *(continued)*

Coalition of Essential Schools in Suburban and Rural Settings
Grade 9 (1990-91) and Grade 10 (1991-92)

Desired Components	Observed Components	
	CES-D	CES-E
Non-instruction (continued)		
Staff commitment of their own time	Some teaching staff have gone well beyond a typical school day.	During 1990-91, several staff gave extended efforts to achieve program goals. During 1991-92, staff enthusiasm flagged badly in part due to several fiscal problems and complicated scheduling.
Parent involvement	Staff report that parent involvement and interest have improved. More parents of students in the program attend school events than parents of other students.	Parents are reportedly generally unaware of the project and its purposes.

Team. Furthermore, the team leader of the tenth grade faculty team is relatively new to the school and the CES program, and none of the tenth grade faculty have attended staff development at Brown University. Students who were clustered together in the ninth grade cohort are now dispersed through the school. As a consequence, the tenth grade cohort of students was exposed to a somewhat more traditional tenth grade program.

In CES-B, the program was also expanding from a ninth grade school-within-a-school, called the "Bridge" program, to other grades. Prior to this year, the changes in the school were carried out by a core group of "believers" and the resisters could stay on the periphery. The tenth grade program is the most traditional in the school, although the principal is establishing some CES principles schoolwide, including the elimination of the honors track and the mainstreaming of all special education students and teachers.

CES–C, the third urban school, also had operated the CES program as a school-within-a-school for ninth graders (known as the Phoenix program). As the students went into the tenth grade, the high school began undergoing several changes. In Spring 1991, the district announced that the school was to become a magnet school. In Fall 1991, a new principal arrived, almost half the teachers retired or transferred to other schools, and nearly half the students in the program transferred. While the tenth grade teachers are willing to learn and apply CES principles, they are new to the program and have received no staff development.

In some regards, CES–D has operated as a school-within-a-school, with the tenth grade program added to provide continuity for the ninth grade students. Our cohort of students have the most consistent CES instruction, although the school is not yet undertaking the magnitude of change that CES–A and CES–B are trying. There is, however, strong district and school support for the program, and the new principal is a former student of Sizer's at Brown University.

CES–E is characterized by a low level of implementation of the CES approach. The extensive efforts undertaken by a cadre of teachers last year were undermined by job uncertainty for teachers and an unsupportive administrative organization which had continued traditional scheduling, focused on state minimum Carnegie unit guidelines rather than on CES principles of essential skills, and discouraged enrollments in the humanities seminars. The principal was "let go" at the end of the 1991-92 school year.

Paideia

The Paideia schools derive from Mortimer Adler's concept of how children should be educated in a democratic society: all children are entitled to the same education in terms of both content and instructional methods. His curricular suggestions build upon the liberal arts tradition that there are certain pieces of literature that all educated people should read and explore. Three instructional methods are encouraged: Socratic seminars, didactic instruction and coaching. Socratic seminars, the cornerstone of the Paideia approach, are discussions in which students and teachers explore ideas. In Socratic seminars, the teacher is an instructional facilitator and a seeker of knowledge rather than a storehouse of knowledge. Didactic instruction is the traditional teacher-led direct instruction for acquisition of knowledge. Coaching is one-on-one instruction in which the teacher works with individual students to improve and transfer their skills. The chief goals of Paideia schools are to increase interactive instruction and build students' critical thinking skills.

Exhibit 4.3 compares the instructional components of the two Paideia schools. In both schools, third graders were observed in 1990-91 and then followed into the fourth grade in 1991-92. In Paideia–A, the fourth grade students continued once a week to participate in the 50-minute Socratic seminar discussing great works of literature. The 40 minutes of coached follow-up activities, however, seldom occurred, and were replaced instead with a writing assignment for homework. One reason is that the fourth grade teachers were new to teaching (and new to the Paideia program) and had not yet received all training. The long-term illness and death of the school's Paideia coordinator clearly affected the faculty and training provided. As with the third grade teachers, the extent to which probing questioning and coaching were integrated into other subjects at the fourth grade level varied with the teacher. The school continued its commitment to the Paideia program for developing the critical thinking skills of students.

In Paideia-B, the Socratic seminar and coaching activities for third graders were more extensive than in Paideia-A (2.5 hours rather than 1.5 hours), with quality varying across teachers. When students reached the fourth grade, the program was initially reduced to just the 50-minute seminar; additional coaching activities were first observed in the spring visit. Paideia-B's program was disrupted substantially in the fall with the arrival of a new superintendent and addition of 11 new programs to the curriculum. Moreover, in the fall, two fourth grade teachers were new to the program and not yet well trained. By the spring, four of the five fourth-grade teachers had applied for transfers to other schools for next year. With the arrival of so many new programs, the effectiveness of the principal and the Paideia coordinator declined over the course of the year.

Exhibit 4.3

Paideia

Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Paideia - A	**Paideia - B**
Instruction		
Use of three methods of instruction/outcomes 1. *Socratic* — seminars with probing open-ended questions for enlarged understanding of values and ideas 2. *Didactic* — teacher-led instruction for acquisition of knowledge 3. *Coaching* — one-on-one instruction for development of skills	In the third grade, teachers had 50-minute seminars once a week, using open-ended questions. Follow-up activities included carefully planned writing and computer lab activities, with teachers as coaches (40 minutes). Quality uneven across third grade teachers. When students went into the fourth grade, the 50-minute seminar once a week continued, but the coached activity did not take place regularly. Rather, writing was assigned as homework. The fourth grade teachers were newer and less well trained in Paideia than third grade teachers, although all were energetic and caring teachers.	Third graders had Socratic seminars and related activities (writing, art and/or movement) for 2.5 hours one day a week. When the students reached the fourth grade, the seminars had been reduced to 50 minutes with follow-up activities later in the day (and usually assigned as homework). In the spring of 1992, coached follow-up activities directly followed the seminar activity as developers intended. Nevertheless, there is a lack of focus on Paideia objectives at the school level, and quality of instruction varied among fourth grade teachers.
Based on "Great Books" of the Western World	Classes follow school's recommendations to include a broader base of African and African-American selections.	Classes follow school's recommendations to include broader multi-cultural selections.

Exhibit 4.3 *(continued)*

Paideia

Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Paideia - A	**Paideia - B**
Instruction (continued)		
Equality of opportunity to learn	Chapter 1 students are in a self-contained classroom. Chapter 1 teachers provided equal time and materials, but did not provide equal quality of instruction. In Year 2, the Chapter 1 class is smaller and quality of instruction is higher. One can argue whether homogeneous groupings throughout school day are consistent with Paideia principles that all students receive the "cream" of instruction.	For third graders, (1990-91), uneven instruction among classroom teachers and lack of involvement of the after-school Chapter 1 teachers. For fourth graders, the instructional program is the same for all students, although some children are ignored in class. Chapter 1 students in fourth grade also receive 50 minutes a day of the highly structured HOTS computer program.
Shared inquiry among students and teacher	Not exhibited in Year 1. In Year 2, there is more shared inquiry and teachers ask questions for which they have no answers. Greater emphasis on critical thinking skills.	Not exhibited in Year 1. In Year 2, shared inquiry is uneven; some teachers ask questions for which they have no answers.

Comer School Development Program

Based on the work of child psychiatrist James P. Comer of Yale University and his colleagues, Comer schools are to become less isolated from the communities in which they are placed. The major departures from traditional schooling are the shared decision-making processes and a curriculum that deals with the emotional, social, and psychological needs of children as well as cognitive objectives. Parents, teachers, the principal and other staff all participate in aspects of the school's decision-making processes. The model intervenes at the school level rather than at the classroom level, so the effects of the program on students in the classroom are usually indirect.

Observations in two Comer schools began with first graders (1990-91) who were then followed in second grade (1991-92). Exhibit 4.4 displays the desired and observed components of the Comer program in each site. Comer-A is a full-fledged implementation of Comer principles, while Comer-B has yet to implement most desired components in a meaningful way.

Comer-A continued its components of school governance, consideration of the mental health and social needs of the students, and an emphasis on family and community involvement in the school. In 1991-92 development and growth in parent involvement activities in the school and in housing projects increased. At the classroom level, the traditional instruction of first grade has been expanded to include some cooperative learning and more whole language instruction. At the request of the first grade teachers, the first graders were taught by the same teachers in second grade.

Comer-B, located in a severely economically depressed urban community, continued a low level of implementation of the Comer School Development Program at the school level. The school governance and mental health committees continued to meet but operated in a manner inconsistent with Comer principles. Shared decision making was not practiced on the Shared Decision Making Team (SDMT), and the Mental Health Team (MHT) addressed urgent student behavior crises and special education referrals rather than proactive school climate issues. The bright spot was that parent involvement continued at a high level at fund-raising and social events, and parents were immediately brought in if students exhibited problem behavior. The Comer School Development Model is a school intervention rather than a classroom intervention. At the classroom level, first grade instruction appeared to be worksheet driven with little classroom management. The second grade teachers appeared more knowledgeable regarding instructional methods than their first grade counterparts, but were equally unable to manage the classroom.

Exhibit 4.4

Comer School Development Program

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Comer - A	Comer - B
Instruction		
Acceptance of whole child through attention to individual differences and the social/affective development of the child	Constructionist teaching methods (including whole language and integrated units), Project Charlie (school-wide social skills curriculum), before and after school activities program, and multicultural curriculum were observed in schools. Two of the three first grade teachers decided and were given permission to move with their first graders into second grade.	Little individualized instruction, (i.e., whole group, extensive use of worksheets), and absence of social development curriculum. Also, abrupt transitions from K-1st grade and a harsh discipline policy were found in the school.
Parent involvement in the classroom and home support for academic activities.	Parent education prgorams for parents to help students at home. Teachers have access to phones to contact parents.	Parents are used as aides in the classroom. Parent- sponsored fundraising for instructional materials was held.
Classroom support services (i.e., art, library, P.E., counseling)	Numerous special programs and staff and available in the school.	There was no evidence of support activities.
Collaboration of staff regarding classroom instruction	Grade level team meetings are held and staff are encouraged to develop new strategies. First grade teaching appeared traditional, while second graders had some cooperative learning.	There was no evidence of collaborative activity, and few inter-visitations or grade level meetings were observed. There was little feedback and evaluation given based on observation by administration.
Improved academic performance	Students exhibit major gains on district tests with high standing within the district vis-a-vis comparable schools.	Some positive change on district level achievement measures seen along with substantial time spent on test preparation.

Exhibit 4.4 *(continued)*

Comer School Development Program

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Comer - A	Comer - B
Instruction (continued)		
Positive social relationships among students	Peer tutoring with lots of cooperative learning and less competitive structures are in place.	Some field trips held for students. High levels of antisocial behavior observed with much time spent on behavior management.
Non-instruction		
Shared decision making team (SDMT) involving administrators, teachers, and parents actively plans and manages school	Through bi-weekly meetings, all major school decisions are funneled through the SPMT. There is shared leadership of key committees and grade level teams, along with mutual respect within the staff. Numerous examples of shared governance were documented or observed.	Infrequent meetings of the SDMT are held. School has a top-down management style and the staff perceives the principal as sole decision maker.
Positive parental involvement at all levels of the school	Parents are assigned key roles in committees and parent attendance at PTO meetings is high. There are numerous opportunities for parent involvement. Chapter 1 funds support a parent liaison position.	There was evidence of parents in classrooms in early grades, parents are present in the building, and parent fund raising projects have been completed. There are limited parent education activities.
Active mental health team (MHT) that has prevention-oriented agenda	MHT focused on school climate and improving staff morale. A major agenda item for the spring of 1992 was coping strategies for children in high crime areas. The MHT is used as an intermediate step to referral to special education.	There is little evidence of prevention activities by MHT. The focus was on crisis response or special education referral network.

Exhibit 4.4 *(continued)*

Comer School Development Program

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Comer - A	**Comer - B**
Non-instruction (continued)		
Positive and supportive school climate	Staff support activities are provided by parents. There was mutual respect noted in interviews. The school had an active social calendar involving staff, administrators, and parents.	Low morale was reported by staff along with differing perceptions of program's effectiveness (administrators vs. teachers). High levels of tension existed within the school along with high levels of antisocial behaviors by students.
Staff and parent development on Comer strategies	Many staff development activities were provided and school staff were used to train staff in other schools. The school was also used for visitations by Comer.	Little input from teachers regarding activities, and little evidence of staff and parent development on Comer strategies.
Establishing and involving community links	The school has established multiple partnerships with businesses, colleges, social service agencies.	Little evidence of school establishing any community linkages.

Success for All

Success for All (SFA) is a structured and intensive early intervention program that aims to have all students performing at (or near) grade level by the third grade. Among the specific program components is the regrouping of students from heterogeneous classes into 90-minute homogeneous ability reading groups. Most groups have 15 to 20 students. Kindergarten and first grade students focus on basic language development, relying on Story Telling and Retelling (STaR), big books (outsize books that use large print and pictures, some of which are of the students' making), oral and written composition, and Peabody Language Development Kits. Next is the Beginning Reading program, which introduces phonics while continuing a story-telling component. At the next level, the district's basal series is used in concert with cooperative learning strategies to continue students whole language experiences alongside a more structured approach to language.

In addition to the reading program, SFA uses certified teachers as one-on-one reading tutors in daily 20-minute sessions with low-achieving students. Students are assessed each eight weeks, at which time changes may be made in tutoring or in their reading placement. Tutors also work with regular reading teachers during the daily 90-minute reading periods.

First graders (1990-91) and second graders (1991-92) were observed in Success for All in two schools operating as Chapter 1 schoolwide projects. Both were located in urban, inner city settings. SFA-A serves a predominantly multilingual Asian-American community while SFA-B operates in an African-American community.

SFA-A has incorporated virtually all aspects of the Success for All program into its instruction, including the 90 minutes of reading in homogeneous ability reading groups, one-on-one daily tutorials, periodic (every eight weeks) assessment of students, and the sequenced progression of materials and instruction (Exhibit 4.5). Cooperative learning is a component that does not appear to be particularly well implemented in the classes observed. The only cooperative learning activity was partner reading, where students typically did not listen to each other. Furthermore, when paired to answer story review questions, students usually either copied answers from each other or worked independently. The school has made some adaptations to the program, including having a transitional first grade, using educational aides rather than certified teachers as tutors in grades two and above, and using proficiency tests developed elsewhere for the periodic student assessment.

The structure of SFA-A changed little over the past year. The few changes reported represent continued customization of the program, based on the classroom teachers' perceptions and ideas. The second (and third) grade teachers who expressed interest in incorporating literature into the curriculum have started using basal texts that have "pieces of literature" in them to enrich the SFA curriculum. They do their own "Treasure Hunts" to accompany them. ("Treasure Hunts" are the SFA equivalents to a story review test.)

Exhibit 4.5

Success for All

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	SFA - A	SFA - B
Instruction		
Ninety-minute reading groups, with homogeneous grouping by ability. From 15 to 20 students in each group.	Observed both years.	As first graders, children moved from their regular classroom to the group. Instructional time was more like 80-85 minutes due to time lost in transition. For second graders, the transitions were somewhat smoother, but students were grouped in two ability groups after the school lost its schoolwide project status.
One-on-one reading tutorials for 20 minutes daily	Observed both years.	For first graders, the one-on-one tutoring was in fact small group tutoring (N=6) because so many students needed the service. For second graders, the one-on-one tutoring was in even larger small groups (N=10). The school had lost its schoolwide status so the tutorial became a limited pullout Chapter 1 program.
Cooperative learning	Partners read aloud to each other and do the "Treasure Hunt" (story review) questions. Observed that children often do not listen to each other reading and work independently.	Partners read aloud to each other and do the "Treasure Hunt" (story review) questions. Observed that children often do not listen to each other reading, and one partner often copies the answer from the other partner to the questions.

Exhibit 4.5 *(continued)*

Success for All

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	SFA - A	SFA - B
Instruction (continued)		
Use of certified reading teachers as reading tutors	In first grade, tutors were certified teachers; but in second grade, paraprofessionals were tutors.	Certified teachers were reading tutors for both first and second graders.
Shared format of instruction across reading groups: story, discussion, new vocabulary, oral language production, comprehension, and story structure	Observed both years.	Observed both years.
Progression from STaR to big books, to oral/written composition, to Peabody Language Development Kits to Beginning Reading to district basal reader	Yes, but no big books observed.	Yes, but no big books observed. Thematic units were added when students were in second grade, but the first theme "Bears" appeared to have little instructional importance.

Exhibit 4.5 *(continued)*

Success for All

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	SFA - A	SFA - B
Instruction (continued)		
Reading assessment of all students every eight weeks to change tutoring and reading groups	Observed all three years. Second graders use reading proficiency tests from MacMillan rather than SFA instruments which appeared weak in reading comprehension. As part of eight week assessment, students who are "slipping between the cracks" are identified and through a case management approach are given some combination of tutoring, mentoring by a teacher, or individual counseling. Those doing case management are called the Pupil Support Committee.	In neither year were assessments made every eight weeks. As first graders, no changes were made while coordinator was on sick leave for several months.
No grade retention	Have a transitional first grade, so avoid retention issue at this level.	No grade retention observed.

Exhibit 4.5 *(continued)*

Success for All

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	SFA - A	SFA - B
Non-instruction		
Staff development	Training on SFA provided through The Johns Hopkins University (JHU) on a regular basis. Overall, 5 hours of staff development per month or about 6 days a year were provided, mostly conducted by school staff.	Training on SFA provided through The Johns Hopkins University. New teachers receive training at Hopkins and on-site. Seven teachers (1991-92) attended 3.5 day SFA refresher course. All staff receive 2 days of training before school starts each year.
Program facilitator	One full-time teacher serves as program facilitator. In spring 1992, the program support teacher was on sabatical. Program did not run as smoothly, although substitute is hard-working and well-liked.	One full-time teacher serves as program facilitator. In spring of 1991, the program facilitator was on extended sick leave and a number of duties were not performed in her absence.
Parent involvement	Outreach coordinator and attendance monitor attempt to bring parents into school and interest them in children's education. They also conduct home visits. Hampered by the language barrier and Cambodian custom that home and school are separate. In fall 1991, JHU provided .5 day workshop for teachers in parent involvement.	Parent liaison maintains a Parent Resource Center which is combination drop-in literacy and counseling center. Also attendance monitor makes calls and home visits to parents. School staff are intent on including parents in all school-related activities.

SFA-B has yet to implement all facets of the program. For both first graders (1990-91) and second graders (1991-92), the 90 minutes of reading was foreshortened by time spent in transition; the one-on-one tutoring was small-group tutoring (six to 10 children); student assessments were not made on a periodic basis; and cooperative learning was poorly implemented. In partner reading, for example, children usually ignored each other (as was also the case in SFA-A). Second graders (1991-92) were also affected by the school's losing its Chapter 1 schoolwide status during the summer of 1991. The implications for second grade instruction were immediate. The one-on-one tutoring became Chapter 1 limited pullout programs of 10 children; and the 90-minute homogeneous reading groups (a key feature of the program and one liked by teachers) were shifted back to heterogeneous reading groups. Another change for second graders was the introduction of thematic units. Interdisciplinary thematic units were added because the principal believed the current curriculum lacked coordination. However, the first thematic unit "Bears" appeared to have little instructional importance. In other respects, the program remained unchanged.

Chapter 1 Schoolwide Projects

Components of Schoolwide Projects

Six schools of the 25 schools in our study are included because they are Chapter 1 schoolwide projects. In four schools (two urban and two suburban or rural), we began observing students as third graders (1990-91) and have subsequently observed them through their fourth grade (1991-92) experiences. In the remaining two urban schools, chosen primarily for their extended year component, we began with first grade students and have observed them in both the first and second grades.

Schoolwide projects, under the Chapter 1 legislation, represent a management and funding mechanism for high poverty Chapter 1 schools, where at least 75 percent of the students are economically disadvantaged. Chapter 1 funds may be used throughout the school and need not be targeted specifically on Chapter 1-eligible students, provided the school submits an acceptable schoolwide plan and agrees to additional accountability provisions.

For instructional purposes, the shift to a schoolwide project usually included a reduction in overall regular class size, reduction or elimination of limited pullout programs, increased staff development, and shared Chapter 1 materials among all students.[1] Some schools added an extended school year component as well.

[1] Prior to the schoolwide project, most Chapter 1 funds supported limited pullout programs, with some funds also supporting computer facilities. Coordination of Chapter 1 services with classroom instruction usually depended upon informal contacts between Chapter 1 staff and regular classroom teacher.

All six schools visited reduced the size of the regular classroom; the size reductions varied from a high of 28 students (reduced to 14 students when the half-time aide was there) to a low of 16 students (in a school that did not otherwise increase instructional staff). Average classroom size prior to the schoolwide project was usually 32 to 35 students. Four of the six schoolwide projects hired paraprofessional aides to work half-time in the classrooms. Two schoolwide projects also employed math and reading resource teachers to provide in-class supplemental services to the lowest achieving children. Most schools also had special schoolwide programs: four offered an extended school year, four offered computer-assisted-instruction twice a week (or daily for a limited number of grades), and one adopted an interdisciplinary curriculum with a specialist teacher who visited each classroom for 45 minutes a day for 15 days each year. In no school was Chapter 1 offered in a limited pullout setting. The basic structure of the instructional components has varied little over the past two years. For the specific components of each schoolwide project, see Exhibits 4.6 and 4.7 which focus on third and fourth grade students in urban and suburban or rural settings, respectively, and Exhibit 4.8 which compares the two extended year schoolwide projects for their first and second grade students.

Instruction in Schoolwide Projects—Third and Fourth Grade

Many Chapter 1 schoolwide projects reduced class size and eliminated (or reduced) limited pullout programs so that the regular classroom teacher could provide—

- attention to students' personal needs,
- individualized instruction to students,
- instruction in both basic and advanced skills, and
- an integrated curriculum.

Through our classroom observations, we found little evidence that these objectives have been attained, other than an increased awareness of students' personal needs that may affect their ability to learn. Our findings reflect a continuing low quality of classroom instructional services for third and fourth grade students in high poverty schools. In three of the four schoolwide projects (Schoolwide–A, –B, and –C), substantial resources are being invested in staff development to upgrade the quality of classroom teaching.

Attention to personal needs of children. In the two urban schools, teachers were aware of family backgrounds and whether family circumstances were changing and then sought to take them into account with teaching. The teachers demonstrated a genuine interest in their students and an empathetic understanding of the communities in which the children lived. In one school, the fourth grade teacher spent

Exhibit 4.6

Schoolwide Projects in Urban Settings

Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Schoolwide-A	**Schoolwide-B**
Instruction		
Unified academic focus	Adapted from Essential Elements of Instruction of Madeline Hunter, goals and objectives are written on the board. Only math resource teacher seen applying all the principles.	Adapted from Essential Elements of Instruction of Madeline Hunter. Goals and objectives written on board, but most instruction focused on completion of specific tasks (e.g., spelling words in dictionary).
Additional instructional staff	Additional staff include math resource teacher, who provided small group, in-class instruction (45 minutes, 3 days a week) to third graders and reading resource teacher in one third grade classroom (4 days a week for 45 minutes). Both resource teachers continued service with fourth graders. Paraprofessional classroom aides work half-day in each class (third and fourth graders). Program support teacher is SWP coordinator for school.	Additional staff include math resource teacher (45 minutes daily) and reading resource teacher (also 45 minutes daily). Paraprofessional aides are half-day in each class. Program support teacher is SWP coordinator for school.
Reduced class size (teacher: student ratio)	Varies from 1:25 to 1:28 and is further reduced through part-time aides and resource teachers.	Class size reduced to 1:28 (down from 1:34) and is further reduced through part-time aides and resource teachers.

Exhibit 4.6 *(continued)*

Schoolwide Projects in Urban Settings
Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Schoolwide-A	**Schoolwide-B**
Instruction (continued)		
Special schoolwide programs	Major feature of school is the Communication Arts Network (CAN) that is a mixture of drama, videotape, art, music, writing and reading. Each classroom has 14 45-minute classes per year. Common themes (e.g., China one semester, Africa the next semester) are used across the school.	Major feature is the extended school year of 22 days (5 hours per day). Curriculum is an enriched version of regular school year. Seventy-five percent of students came during the summer of 1991, up from 60 percent the summer of 1990.
Non-instruction		
Staff development	Topics include cooperative learning, assertive discipline and whole language instruction. Program support teacher meets once a month with teachers and twice a month with classroom assistants. In 1991-92, staff development increased to include participation in Penn Literacy Program on whole-language instruction (bi-monthly meetings at the school) for graduate credit, Problem Solving for Technology (also for graduate credit) plus 10 hours of staff development for all staff in comprehensive reading project.	During the year, about 3 days total on such topics as effective instruction, cooperative learning, assertive discipline, and World of Reading Program (basal with literature). Program support teacher also provides staff development to aides and serves as mentor teacher. Also staff development is 45 minutes a day during the 22 day extended year segment (15 hours total).
Student support staff	Periodic meetings about individual students using case management approach. Actions include staff "adopt-a-student" program.	Program support teacher, principal and another teacher meet bi-weekly to develop plan of study for individual students needing additional support.

Exhibit 4.6 *(continued)*

Schoolwide Projects in Urban Settings
Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Schoolwide-A	**Schoolwide-B**
Non-instruction (continued)		
Build student self-esteem	Schoolwide motto is "try your best, be your best, we are the best." Prizes for good behavior and attendance (such as ice cream parties, lunch with teacher) both at individual and classroom level.	Teachers focus on self-esteem of students; special events also designed to provide role models for students.
Comprehensive parent involvement program	Extensive parent program. Home-parent liaison (1 FTE) recruits and organizes parents. Activities include student "author" teas, special school events, parent workshops, monthly Parent-Council meetings, and volunteers in school. Parent group attended City Council Budget meeting. Parent program growing.	Extensive parent program. Full-time Community School Coordinator organizes such events as "Parent Scholar" program, Day for Fathers (N=200), and day celebrating Black women (N=200). School Improvement Committee has a parent member. Also, there are monthly parent workshops, an ongoing grandparent support group, home visits and pre-GED program. Principal also visible and active in community.
School-based management	Through School Improvement Committee, teachers participate in decision making. Teachers also participate in grade level meetings. Principal strong advocate for the school and brings in special funding and new programs. Principal does not, however, have veto power over deciding which new teachers come into school.	School Improvement Committee consists of principal, teacher and parent representation. Teachers report considerable autonomy in accord with the school philosophy and management style of principal.
Staff commitment of extra time to the program	Observed both years.	Observed both years.

Exhibit 4.7

Schoolwide Projects in Suburban and Rural Settings

Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Schoolwide-C	Schoolwide-D
Instruction		
Unified academic focus	Team planning and cross-class projects in third grade, but only modest evidence for the same students when they reached the fourth grade.	District's standard curriculum is in place. Principal encouraged use of small groups and cooperative learning, but neither was evident in either grade. There is no unified academic focus.
Reduced class size (reduced teacher:student ratio)	1:16 for third graders and 1:20 for fourth graders (down from 1:25-30).	The plan established a class size of 1:26, although most classes had a ratio of 1:17.
Special schoolwide programs	Third graders work in the computer lab twice-a-week for 45 minute sessions (Jostens). Third graders also participated in Young Author's Fair. Summer school program available four hours per day for four days per week for four weeks. About one-third of the third graders attended in summer of 1991. Work in the computer lab continued for the same students in the fourth grade.	All students receive 30 minutes of computer instruction twice a week. Materials on "Talents Unlimited," a program to encourage higher order thinking skills, are on exhibit but not observed in classrooms. Saturday school program is available for low achieving students. Attendance is optional.

Exhibit 4.7 *(continued)*

Schoolwide Projects in Suburban and Rural Settings

Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	Schoolwide-C	**Schoolwide-D**
Non-instruction		
Staff development	Half-day of staff development every two weeks (about 15 days a year) on such topics as cooperative learning, writing across the curriculum, whole language instruction and higher order thinking skills. There are also grade level department teams. Until 1988, school was viewed as a dumping ground for bad teachers. Since then about half the faculty has been replaced.	Three days of inservice in the summer on cooperative learning, classroom managment, teacher expectations, school climate and teaching methods. Two more days of inservice were provided through Chapter 1 funds to all teachers. The SWP program facilitator (known as the program support teacher) assists with the in-service program during the school year and provides demonstration lessons by request. Few have requested demonstration lessons.
Build student self-esteem	Certificates and prizes for achievement and attendance are awarded during assemblies with parents and families. Also students with high grades or perfect attendance have .5 day field trips quarterly.	Incentives for achievement and attendance not observed, but school counselor meets with every class 30 minutes a week.

Exhibit 4.8

Extended Year Schoolwide Projects

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Extended Year Schoolwide-A	**Extended Year Schoolwide-B**
Instruction		
Unified academic focus	A sequenced instructional program with skills outlined on nine-week mileposts. Core literature approach with 10 books shared among teachers. Grade level planning and within-grade sharing of themes across subject matter.	A sequenced instructional program with skills outlined on nine-week mileposts. Core literature approach with 10 books shared among teache s. Grade level planning and within-grade sharing of themes across subject matter. Open Court reading program for some first graders; program continued for them as second graders.
Additional instructional staff	A half-time aide in each classroom during the morning. Full-time instructional coordinator and full-time bilingual coordinator in the school.	A half-time aide in each classroom during the morning. Full-time instructional coordinator and full-time bilingual coordinator in the school.
Reduced class size (teacher: student ratio)	1:20 for first graders. Budget cuts raised it to 1:23 in 1991-92, although most classes had 20 or fewer students. With half-time aide in the morning, ratio reduced to 1:10.	1:20 for first graders. Budget cuts raised it to 1:23 in 1991-92, although most classes had 20 or fewer students. With half-time aide in the morning, ratio reduced to 1:10.

Exhibit 4.8 *(continued)*

Extended Year Schoolwide Projects

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Extended Year Schoolwide-A	**Extended Year Schoolwide-B**
Instruction (continued)		
Special schoolwide programs	Extended year program of 20 days of full-time instruction. Interdisciplinary curriculum developed jointly by all teachers at each grade. Students changed classes and teachers each period. Attendance in summer of 1991 about 70 percent of first graders; in winter of 1991-92, attendance was over 90 percent.	Extended year program of 20 days of full-time instruction. Two of three first grade teachers observed did team teaching using an oceanography theme (with trip to Marine Museum). About 70 percent of students attended. When school calendar shifted and extended year held in January, attendance was over 90 percent. Second grade teachers did some enrichment and cross-class sharing.
	Computer lab of Writing-to-Read for all English speaking first graders for 50 minutes a day, 5 days a week. Most teachers work with children in lab.	Computer lab of Writing-to-Read for all first graders (including monolingual-Spanish speakers) for 50 minutes a day, 5 days a week. All teachers work with children in labs.
	After-school clubs for 30 minutes once a week (first graders). Shifted to after-school tutoring for second and third graders, with lowest achieving students tutored by their own teachers. Teacher sees two different sets of students once a week.	After-school tutoring for 30 minutes once a week, with lowest achieving students tutored by their own teachers. About six students in each session. Teacher sees two different sets of students once a week.
	Saturday clinic — three consecutive Saturdays of special projects and field trips. Held for first graders (1990-91), but not for second graders (1991-92).	Not a component. Funds for Saturday clinic were transferred to after-school tutoring.

Exhibit 4.8 *(continued)*

Extended Year Schoolwide Projects

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Extended Year Schoolwide-A	**Extended Year Schoolwide-B**
Non-instruction		
Staff development	For all teachers, 14 days annually on core literature, whole language instruction, interdisciplinary teaching, active hands-on learning, cooperative learning, multi-cultural teaching, and writing.	For all teachers, 14 days annually on core literature, whole language instruction, interdisciplinary teaching, active hands-on learning, cooperative learning, multi-cultural teaching, and writing.
	Grade-specific staff meetings every 9 weeks at a minimum. Funds available to visit programs in other schools. Mentor teachers and instructional coordinator conduct demonstration lessons.	Grade-specific staff meetings every 9 weeks at a minimum. Funds available to visit programs in other schools. Mentor teachers and instructional coordinator conduct demonstration lessons. One day additional training in Open Court Reading and Writing program.
Student support staff	Full-time counselor, full-time psychologist, full-time nurse and full-time truancy counselor.	Full-time counselor, full-time psychologist, full-time nurse and full-time truancy counselor.
Build student self-esteem	For both individuals and classrooms, certificates and awards for achievement, good citizenship and attendance. Weekly assemblies (45 minutes each) to honor students.	For both individuals and classrooms, certificates and awards for achievement and attendance. Emphasis on students assuming responsibility for their own actions. "Learning begins with me" is school motto.

Exhibit 4.8 *(continued)*

Extended Year Schoolwide Projects

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components	
	Extended Year Schoolwide-A	**Extended Year Schoolwide-B**
Non-instruction (continued)		
Comprehensive parent involvement program	Full-time community liaison. Outreach to parents extensive from liaison and teachers. Parent activities in the school include volunteers, clothing and food drives, toys for the holidays. School-supported activities include ESL program, monthly meetings, bi-weekly home visits with low achieving students.	Full-time community liaison. Outreach to parents extensive from liaison and teachers. Parent activities in the school include volunteers, clothing and food drives, toys for the holidays. School-supported activities include ESL program, monthly meetings, bi-weekly home visits with low achieving students.
School-based management	Shared-Decision Making Council, an elected group of the principal, 5 parents/community members, 5 teachers, the union representative, and one educational aide meet up to twice a month to decide on the uses of discretionary funds (including textbooks), discipline policies, and scheduling.	Shared-Decision Making Council, an elected group of the principal, 5 parents/community members, 5 teachers, the union representative, and one educational aide meet up to twice a month to decide on the uses of discretionary funds (including textbooks), discipline policies, and scheduling.
	Principal and two teachers (elected by their peers) form a Leadership Team that meets monthly with counterparts in nine other schools on instructional and administrative issues.	Principal and two teachers (elected by their peers) form a Leadership Team that meets monthly with counterparts in nine other schools on instructional and administrative issues.
Staff commitment of extra time to the program	Observed all three years. In Summer 1992, principal and theachers had to renew their five-year commitment to the program. About one-quarter of teachers (10 of 39) left, including a few who were not renewed.	Observed all three years. In summer 1992, principal and teachers had to renew their five-year commitment to the program. Just over 10 percent (5 of 43) left, including a couple who were not renewed.

extra time with a student because the child's parents were separating and the father was moving across the country. In another school, the teacher knew how many students in her class lived with both parents (three) and how many parents were employed (four). She was observed one morning in the principal's office, arranging to obtain warm winter coats for some students. In this school, another teacher shared a student's medical condition with the class to foster greater understanding of the condition.

The teacher asked Blair each day if he had taken his medication for asthma. He is seriously asthmatic and has already been hospitalized three times this year. The teacher was concerned because Blair appeared ashamed of his illness and felt bad when his classmates made fun of him. The teacher talked with the students and their mothers, explaining Blair's illness and asking for consideration and understanding.

Teachers in the two rural schools knew less of children's personal lives, contrary to what one would expect from the literature on rural schools. In one rural school, the children lived in a pueblo with a very private, secret culture inaccessible to outsiders. While the Hispanic principal was well regarded within the Pueblo community, there was no evidence that the Anglo teachers had access to children's lives, and this was in keeping with the Pueblo government's requests. In the other rural school, most teachers lived in more middle-class communities and had little interaction with the children's families.

Individualized instruction to students. One objective of reduced class size in the regular classroom was to provide opportunity for teachers to respond to the individual needs of children, especially in the absence of the small group instruction that students traditionally received in Chapter 1 limited pullout or in-class programs. In the third and fourth grade classrooms observed, we found little indication of small group or individualized instruction of students by the regular classroom teacher.

Several classroom teachers observed appeared to introduce the form but not the content of small group instruction. Classrooms would often be organized in tables of four or five students, or desks were arranged to form table space with students looking across at each other. Seldom though were the children at the table engaged in a joint project together that could be called cooperative learning. Rather the students were either addressed *en masse* as a whole class, were engaged in individual seatwork, or participated in an aberration of cooperative learning (such as each team searching for and then reading a sentence verbatim from a social studies textbook).

For one urban schoolwide project, the only small group instruction that third graders received came from the in-class resource teacher; all instruction provided by classroom teachers was to the whole group. When these students reached the fourth grade the pattern continued, although in one classroom students worked in teams of eight to design and construct a bed out of shoe boxes for Paul Bunyan (30 minutes) and on another occasion (also 30 minutes) students engaged in paired reading (where students

read to each other and then reported to the class what they had read). A similar pattern was found in the other urban schoolwide project, with the resource teacher providing small group instruction in the classroom. In this school, one class of fourth graders also was engaged in a science experiment in small groups, with each group cycling through a series of activities (such as conducting, writing up, and illustrating the experiment).

In the rural schoolwide project serving Pueblo children, third grade instruction was typically delivered in small group settings for reading, writing and science. While students in one group read individually to the teacher, another group completed workbook exercises, a third created sentences, and the fourth engaged in an oral language exercise (creating and delivering dialogue for English-speaking hand puppets). In writing, students worked in teams to write (revise and rewrite), illustrate and bind stories for the book fair. When these children progressed into the fourth grade, all evidence of small group and individualized instruction was gone. All instruction observed was directed to the entire class, and students worked by themselves in workbooks or ditto sheets.

In the second rural schoolwide project, the regular classroom instruction for both third graders (1990-91) and fourth graders (1991-92) was delivered exclusively in a whole class setting, although class size typically had been reduced from 28 to 17 students. In one class, the teacher read aloud reading and science questions from the textbook or the teacher's guide, waited for either group or individual responses, and then went on to the next question. There was no discussion.

Instruction in both basic and advanced skills. The vast majority of time students spent in third and fourth grade classrooms in the schoolwide projects was filled with the mechanics of basic skills. Seldom were the purposes or the importance of lessons relayed to children. Rarely were students asked to explain why or how something happened, to look for similarities or differences among items (including relating a story to their own lives), or even encouraged to ask an academic question.

An adaptation of Madeline Hunter's Effective Instruction Model was planned for the two urban schoolwide projects, but few classrooms had yet grasped the specifics of her approach. Teachers more frequently wrote the tasks for the day than the objectives of a lesson. Tasks included, for example, assignments of workbook and ditto sheet exercises to complete and spelling words to alphabetize. More rarely found were such objectives as those of the science teacher for a lesson on ant farms—to understand populations and habitats, to be able to describe how ants live, to describe the different jobs that ants have, and to draw an ant farm.

In the two rural schoolwide projects, there was little evidence of a unified academic focus, except for the third grade in one school where teachers shared themes and project ideas for their Pueblo students.

For much of the instructional day across all four schoolwide projects, children worked on the mechanics of language (such as syllables, subject–verb agreement), made sentences from words on the board, alphabetized spelling words or looked up their meaning in a dictionary, and computed fractions or learned multiplication tables. It was more common to see social studies (when offered) focus on facts (and coloring flags) than on why rivers flowed. In the worst instances, the teacher asked for definitions (as in, "What is a proton?") and called on one student after another until a student quoted the definition directly from the book. In most classes observed, there was little discussion of why or how things happened or the relevance of events to the children's lives. Sometimes teachers were wrong. For example, in a science lesson on rain forests, a rain forest was defined as a forest that grows on the north or south side of the equator, and it was noted that Washington state has no rain forests because it is not warm enough. In a reading story where a locust tree figured prominently, it was defined as a tree with a locust in it.

An integrated curriculum. For schoolwide projects generally, the question of anintegrated curriculum is moot because the regular classroom teacher provides all services to students. In one school that provided instruction through several teachers (that is, reading and math resource teachers and the interdisciplinary teacher), the principal and teachers both noted the need for more knowledge about what was going on elsewhere and felt that communication was improving.

Instruction in Schoolwide Projects—First and Second Grade

In two schoolwide projects initially chosen for their extended year component we observed students as they progressed from first grade (1990-91) into second grade (1991-92). For the most part, teachers were aware of students' needs, sought to individualize instruction, and provided an integrated curriculum. Critical thinking skills were encouraged in most but not all classrooms. Staff development has been a major component in both schools for the past five years, with 15 days set aside annually for staff in-service.

Attention to students' personal needs. As was evident in the other urban schoolwide projects, teachers in the two extended year schoolwide projects, for the most part, were aware of their students' family backgrounds and circumstances and took them into account in their lessons. Students' backgrounds and experiences were explicitly valued in the curriculum, especially in the daily writing program. In one school, however, the size of the bilingual staff has not kept pace with the rapid increase in the number of monolingual Spanish-speaking children.

Individualized instruction to students. Small group instruction was observed in two of three first grade classrooms and in both second grade classrooms in one school. In one second grade classroom,

students worked in informal small groups, moving at their own pace from one assignment to another. For example, as the students finished problems on the board, they continued working on book reports or another writing assignment. The teacher discussed problems and writing individually with each student, and students read their own stories to each other and to the whole class. In the second school, small group instruction was observed in all classrooms in both grades, although the individualized attention in the Writing-to-Read Lab was not observed because two first grade teachers could not accompany their students to the lab (one because she had a split first/second grade class; the other because she had to provide instruction to the monolingual Spanish-speaking students). Providing an effective education to monolingual Spanish-speaking students is challenging in both schools. The small group instruction in one second grade class, for example, often consisted of a bilingual aide working with 15 monolingual Spanish-speaking students while the predominantly monolingual English-speaking teacher worked with the five English-speaking students.

Instruction in both basic and advanced skills. In most classrooms in both schools, attention was paid to both basic and advanced skills. Advanced skills were seen most often in the reading program, based on core literature. Students in each grade read a collection of books with students writing stories based upon the books and their own experiences. A project activity usually followed the completion of the book. Science and social studies also included "how" and "why" questions as well as basic facts. In both schools, teachers at each grade level did some joint planning and sharing of project ideas.

Integrated curriculum. Coordinating the curriculum across programs is moot because the entire curriculum is taught by the regular classroom teacher, including the after-school tutoring program and the extended year component. The districts and schools have increasingly emphasized integrating across subject matter areas within the curriculum (known as "theming"), with some evidence of progress in both schools. In one school, the extended year component used transportation as the common theme, with students changing teachers each period.

Adjuncts to the Regular Classroom

Four special strategy programs provide supplemental instruction to regular classroom instruction. Represented are limited pullout programs (Reading Recovery, computer-assisted-instruction, and METRA tutoring), an in-class program (peer tutoring and cross-age tutoring), and extended time programs (Extended Day and Extended Year). The adjunct programs are distinguished by their self-contained instruction and curriculum. They pose no change to the core instruction, nor do they challenge the decision-making structure in the school. Another hallmark of adjunct programs (excluding extended

time) is their fidelity to a particular model. For the computer-assisted-instruction programs, for example, the curriculum is entirely software based. The METRA tutoring program also follows prescribed steps. Furthermore, through a one-year training program, Reading Recovery teachers are able to apply with fidelity an elaborate collection of teaching strategies, building on cues and miscues that children use in reading.

For implementation of adjunct strategies in the classroom, a central concern is the extent to which the core curriculum and the adjunct special strategy give students consistent (and not contradictory) instructions about how to learn.

Reading Recovery

Reading Recovery (RR) is an early intervention program designed to reduce reading failure. It is a one-on-one tutoring pullout program for first grade students who are experiencing difficulty in learning to read. Students meet daily for 30 minutes with a highly trained Reading Recovery teacher. After two weeks of diagnostic activity, the remaining weeks are spent with the child reading familiar and new words and books aloud; the teacher emphasizes the use of appropriate strategies for dealing with particular difficulties. The child also dictates sentences to the teacher. Stories to be read at home are also part of the daily work. Students may stop participating in Reading Recovery when they reach the average level of the class. Typically students remain in the program for 12 to 16 weeks, although some students may continue for a full school year.

As shown in Exhibit 4.9, in both Reading Recovery programs visited, the teachers had completed the year long training. Tutoring was provided five days a week in RR-A, but only three days a week in RR-B for some students. Just over half the students completed the program within the desired time limit (60 sessions or 12 weeks). The others continued longer, including some who stayed in the program the entire school year.

How to select students for this first grade intervention is not yet fully resolved. RR-A chose students from the first grade classroom whose teachers were the RR teachers. The following year, after other first grade teachers complained that they had lower achieving students who needed the services more than those participating, selection criteria were broadened. In both schools, there were concerns are about whether and how the neediest students receive services. One school chose students that teachers thought would no longer need services after Reading Recovery; the lowest achieving students were not chosen and received no other services as first graders. In the other school, the lowest performing students received supplemental Chapter 1 instruction four days a week (40 minutes daily) in letter and sound recognition, preconditions to learning how to read. They were to be placed in Reading Recovery as space became available.

Exhibit 4.9

Reading Recovery

Grade 1 (1990-91)

Desired Components	Observed Components	
	RR-A	RR-B
Instruction		
Reading as a process of making meaning from text	There is a focus on building upon and developing reading strategies and developing independence. Some 700 pieces of text are used.	There is a focus on building upon and developing reading strategies and developing independence. Some 700 pieces of text are used.
Individual tutoring—early-on intervention	One-on-one tutoring for 30 minutes per day for five days per week. Two teachers were involved and a total of eight children were tutored daily.	One-on-one tutoring for 30 minutes per day. One teacher saw students five days a week, and one teacher saw students three days a week. A total of seven students were served.
	Although RR is most intensive of early interventions, it was not offered to the lowest achieving children in the first grade. In 1990-91, only students in one of the first grade classrooms were chosen. (Children were chosen from all first graders the following year.) Usually teachers chose students whom they thought would be "recovered" in a year and would not need additional services in second grade.	Although RR is most intensive of early interventions, it was not offered to the lowest achieving children in the first grade. Usually teachers chose students whom they thought would be "recovered" in a year and would not need additional services in second grade.
High quality trained staff	Staff have the ability to teach strategically and to diagnose and prescribe effective strategies.	Staff have the ability to teach strategically and to diagnose and prescribe effective strategies.

Exhibit 4.9 *(continued)*

Reading Recovery
Grade 1 (1990-91)

Desired Components	Observed Components	
	RR-A	RR-B
Instruction (continued)		
Students will be discontinued on or before 60 sessions	Fifty-four percent of students were discontinued. The others remained longer, and two students stayed all year.	Fifty-seven percent of students were discontinued. The others remained all year. Two children dropped out due to parent request because program was felt to be too intense for children.
Students will perform at or above average of their class	In second grade, the cohort showed variable ability to keep up with the regular class. This depended upon the extent of support in class and the consistency between Reading Recovery and instructional strategies used in second grade.	In second grade, the cohort showed variable ability to keep up with the regular class. This depended upon the extent of support in class and the consistency between Reading Recovery and instructional strategies used in second grade.
Coordination of regular classroom, and Reading Recovery curriculum	Not explicitly discussed as part of Reading Recovery. Second graders who were former Reading Recovery participants received Chapter 1 small group pullout. It was not coordinated with regular class or Reading Recovery strategies.	Not explicitly discussed as part of Reading Recovery. Second graders who were former Reading Recovery participants received Chapter 1 small group pullout. It was not coordinated with regular class or Reading Recovery strategies.

Exhibit 4.9 *(continued)*

Reading Recovery
Grade 1 (1990-91)

Desired Components	Observed Components	
	RR-A	RR-B
Non-instruction		
High quality staff development	Becoming a RR teacher requires completion of a year long training program with a certified RR teacher leader. Weekly three-hour collaborative meetings are held and on-site feedback on teaching performance is given. Also four day summer workshop.	Becoming a RR teacher requires completion of a year long training program with a certified RR teacher leader. Weekly three-hour collaborative meetings are held and on-site feedback on teaching performance is given. Also four day summer workshop.
Parent participation	Parent supervises child's reading and parent reinforces teacher's strategies on a nightly basis.	Parent supervises child's reading and parent reinforces teacher's strategies on a nightly basis.

While students were participating in Reading Recovery, there was little integration or awareness of the Reading Recovery teaching strategies and regular classroom instruction. Regular classroom teachers were often unaware of RR strategies and, in one case, the regular teacher criticized the child for applying RR principles in class (that is, looking at the pictures of a story to derive or predict meaning before reading the words).

The most observable development for Reading Recovery first graders as they went through second grade was the lack of carryover in instructional methods. For students who received Reading Recovery last year and are currently receiving additional Chapter 1 instruction in the areas of reading, observers reported that children are not given supplemental instruction that even slightly reinforces the level of services they received from the Reading Recovery instruction a year earlier. Students' instruction in the regular second grade classroom also did not support the Reading Recovery methods, and children often appeared intimidated by the public performance required in oral reading.

Computer Curriculum Corporation (CCC)

The Computer Curriculum Corporation (CCC) educational software for computer-assisted instruction is designed for use in a dedicated computer laboratory staffed by trained paraprofessionals. Each child receives 11 minutes of math and/or 13 minutes of reading each day. The program consists of sophisticated drill and practice on strands, sub-skills, and mini-sessions within a subject area such as reading, science or math. Math strands, for example, include measurement, geometry, addition, number concepts, subtraction, fractions, equations, applications, multiplication, problem solving, science applications, word problems and division. Extensive branching within the program guides students to the specific level of skills to be practiced. Once the initial CCC assessment is completed at the beginning of the school year, students are asked between 22 and 30 questions during each session. Correct answers get positive feedback and incorrect answers are followed by encouraging phrases. A second incorrect response is followed by the right answer along with a demonstration of the correct solution. Students can ask for on-line tutorial assistance if they are unable to answer a question. At the end of the session, the program indicates the number of questions attempted, the number and percent correct.

Third grade students (1990-91) and the same students as fourth graders (1991-92) were observed in two CCC programs. One is a state funded limited pullout program in a Chapter 1 school, while the other is a program available to all students in a Chapter 1 schoolwide project.

As shown in Exhibit 4.10, all third graders in CCC-A received both math and reading on CCC through the Chapter 1 schoolwide project. Classroom teachers escorted children to the lab and worked with them there. The same pattern was followed for the children when they were fourth graders. In CCC-B, on the other hand, CCC was provided to select low-achieving students in a limited pullout setting for

Exhibit 4.10

Computer Curriculum Corporation

Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	CCC-A	CCC-B
Instruction		
Daily computer-assisted instruction	All students attend CCC lab for 30 minutes daily. They receive 13 minutes of reading and 11 minutes of math.	Students receive 13 minutes of reading and/or 11 minutes of math.
Regular assessment of student progress and performance	Weekly progress reports for teachers are prepared by the CCC proctor; some teachers review and use CCC worksheets in the classroom.	Weekly progress reports for teachers are prepared by the CCC proctor; observers have never seen any use of them.
Immediate academic feedback—students know if answers are right or wrong	Immediate academic response is provided to students on-line.	Immediate academic response is given to students on-line.
Specific subject area courses in reading and math	Both content areas observed; all students do reading then math.	Both subjects observed; more students use reading than math.
On-line help available as necessary from an owl icon that appears at the beginning of new topics and when students make mistakes	Few students request help although after two or three wrong answers, a tutorial begins automatically.	Few students request help, although after two or three wrong answers, a tutorial begins automatically.
Positive reinforcement appears on the screen as ribbons, firecrackers etc.	These are frequent and varied. Additionally, students with consistently high scores are named on the bulletin board.	Positive reinforcements are frequent and varied—given also from the proctor.

Exhibit 4.10 *(continued)*

Computer Curriculum Corporation
Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	CCC-A	CCC-B
Instruction (continued)		
Consistent time-on-task behavior	Time-on-task behavior is generally consistent. Although, depending upon the number of users, the system's response time takes longer than is optimal, and students do start losing interest.	Time on task behavior is generally consistent. Although, depending upon the number of users, the system's response time takes longer than is optimal, and students do start losing interest. When 2nd graders began in 1991-92, many students sat in hall waiting to use computers.
Computer literacy	Computer literacy is limited to modest typing and use of number-pad, no programming to speak of.	Computer literacy is limited to modest typing and use of number-pad, no programming to speak of.
Coordination of regular classroom and CCC curriculum	The regular classroom teachers go to the CCC lab every day, and they talk with the proctors and monitor their own students' performance and progress. There is clear evidence of coordination.	There is no evidence of coordination of the regular classroom and the CCC curriculum.
Improved academic performance in relevant subject areas and on standardized tests; students can gain 1.5 years for 150 hours of instruction	Inconclusive in 1990-91; at the end of the 1991-92 school year, the statewide achievement test scores have apparently worsened, and the district has begun efforts to acquire other software and hardware in order to broaden the scope of computer-learning experiences for its students.	Inconclusive; most of the students observed in CCC during the 1990-91 school year continue to participate this year (1991-92), and the hypothesized gain remains out of reach for most students.

Exhibit 4.10 *(continued)*

Computer Curriculum Corporation
Grade 3 (1990-91) and Grade 4 (1991-92)

Desired Components	Observed Components	
	CCC-A	CCC-B
Non-instruction		
Improved self-esteem of participating students	Improved self-esteem is difficult to comment on, although when students were in the 3rd grade (1990-91) they seemed more enthusiastic than in 4th grade (1991-92).	Improved self-esteem is difficult to comment on, although when students were in the 3rd grade (1990-91) they seemed more enthusiastic than in 4th grade (1991-92). Proctor also appears more burnt-out and has less time to connect with each child this year (1991-92).
Efficient service delivery strategy—more children can be served with fewer staff and less educated staff	Service delivery is quite efficient—the entire school is served.	Sometimes the service delivery is efficient, although in the 1991-92 school year we observed some classes in which 65 percent of the children sat in the hall to wait their turn for the computer because there are only 9 terminals. Additionally, children lose time in transit because they travel to and from their classrooms unsupervised.

either reading or math (and sometimes both). Some students also received limited pullout Chapter 1 services. A paraprofessional (high school graduate) proctor oversees the CCC lab. She has worked in the lab since the program began; she is very conscientious, but also overworked. In addition, the amount of time students spent going to or from the lab increased for fourth graders when the program was extended to second graders in 1991-92. Many students were observed waiting in the hallway for machines to become available.

In CCC-A, there were no changes in the school's use of CCC or in the delivery of services to children between third (1990-91) and fourth (1991-92) grade. Test scores have declined in the school, however, and while school people blame themselves rather than CCC for the poor scores, district personnel are now examining different hardware and software. The concern is that CCC emphasizes skills and drill to the exclusion of problem solving and critical thinking abilities.

In CCC-B, the program remained essentially the same for students in the third and fourth grades, although the number of work stations increased from eight to nine.

Tutoring

Two diverse tutoring programs are included in *Special Strategies*. METRA is a commercially available and highly structured tutoring system in reading, math and English-as-a-second language that combines one-on-one tutoring with companion instructional materials in a pullout setting. For 15 minutes a day, three days a week, paraprofessional aides lead students through phonetic exercises in a guidebook. The exercises include sounding out new words, practicing blending sounds, practicing new sounds, and reading words and sentences. Twice a week for 15 minutes a session, tutors also work with children to improve their comprehension skills by reading words, phrases and sentences silently and answering a series of questions. Tutors immediately correct mistakes. When students have correctly answered 80 percent of the questions, they move to a more difficult reading level.

The METRA program has remained essentially unchanged over the last two years (Exhibit 4.11). For first graders, the 15-minute METRA activities were held at times when the regular class was engaged in seatwork in language arts and mathematics; the one-on-one sessions were carefully scheduled to ensure that students were not pulled out of their classrooms during instructional periods. For no students did the time out of the classroom appear disorienting. No first graders we were following received METRA services as second graders. Two of the three students appeared to be doing well in second grade. The third student observed appeared to be floundering somewhat and her classroom teacher thought METRA services would help, if only to provide personal attention.

The second tutoring program included peer tutoring in first grade classrooms and cross-age tutoring as the first graders went into second grade. In classwide peer tutoring, each week first graders

Exhibit 4.11

METRA Tutoring (Tutoring–A)

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components Tutoring-A	
	Grade 1 (1990-91)	Grade 2 (1991-92)
Instruction		
Process		
Tutoring on reading skills, using METRA materials—three 15-minute sessions per week	Observed	Observed
Tutoring on reading comprehension using non-METRA materials —two 15-minute sessions per week	Observed	Observed
Add tutoring in math to the Chapter 1 program	Not a component	One tutor has been trained to use METRA math tutoring materials and provide some Chapter 1 children with help in math.
Increase the amount of computer-assisted instruction in the Chapter 1 program. Have METRA as one of several tools rather than the only one	Not a component	Discussions began in 1991-92, with implementation scheduled for 1992-93.
Outcomes		
Increase standardized test scores and NCE gains	For some years, both standardized test scores and NCEs rose. However, recently, scores and NCEs have flattened out.	For some years, both standardized test scores and NCEs rose. However, recently, scores and NCEs have flattened out.

Exhibit 4.11 *(continued)*

METRA Tutoring (Tutoring–A)
Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components Tutoring-A	
	Grade 1 (1990-91)	Grade 2 (1991-92)
Instruction (continued)		
Raise reading comprehension for Chapter 1 children	Limited evidence from standardized test scores, but teachers report improved classroom performance. Teachers reported improved performance for all three children observed for whole day.	Limited evidence from standardized test scores, but teachers report improved classroom performance. Two of three children are doing well in second grade after receiving METRA tutoring as first-grade repeaters.
Improve math skills of Chapter 1 children	Began in 1991-92	No data are yet available.
Serve more children in the Chapter 1 program so that all eligible children receive services		Aides are no longer assigned to non-Chapter 1 duties so each paraprofessional aide has more time in which to serve more children.
Non-instruction		
Increase building-level participation in Chapter 1 planning	Began in 1991-92	Chapter 1 committee prepared and submitted a memo on their plans for 1992-93 school year.
Encourage—through staff development and building-level planning—more integration of Chapter 1 with regular classroom	Began in 1991-92	Discussions began in 1991-92, with implementation scheduled for 1992-93.
Increase self-esteem of Chapter 1 children through one-on-one attention	Teachers report students are more confident and more positive about their reading abilities.	Teachers report students are more confident and more positive about their reading abilities.

were assigned to teams and paired within their teams. Students work on spelling and reading, taking turns as tutors and learners in 10-minute segments during the 30 minutes classes spend in classwide tutoring sessions. In the Chapter 1 replacement class, the paraprofessional aide and classroom teacher keep track of the number of correct answers within each pair and then for each team; daily and weekly recognition goes to the winning pairs and teams. Individual progress is assessed using pre- and post-test scores. In regular first grade classrooms, the classroom teacher oversees all peer tutoring.

As shown in Exhibit 4.12, the peer and cross-age tutoring were implemented as planned. The first graders (1990-91) appeared to thoroughly enjoy the peer tutoring activities, in part because the activities were self-contained, structured and fast-paced. Only one of the first graders received cross-age tutoring the following year as a second grader. While the self-esteem of the fifth grade tutors was substantially enhanced through the tutoring and the friendships between older and younger students were positive, there is less agreement about whether the fifth graders actually provided any real help to the second graders. The program was not considered a success by staff and will be dropped in 1992-93.

Extended Time

The two extended time programs are an after-school program and a summer program for migrant children.

The Chapter 1 Club meets daily for 30 minutes after school. Every two to three weeks a new book is selected that helps structure reading, writing, and project-based activities for that period of time. Children meet in the library where the librarian (head teacher for the Chapter 1 Club) reads a book to all students from three grade levels and, with the help of aides, asks questions about the story. Words from the story are written on the board. The following afternoon each grade meets separately with students writing about a topic related to the story. They use words from the previous day. Children spend four days on the writing component: two days of writing, one day rewriting and revising and one day creating a picture to illustrate their stories. During the second (and sometimes third) week, children work on a project related to the story (such as making flags after reading a story about Betsy Ross).

The Chapter 1 Club was developed by the head teacher at this rural school, so the difference between desired and observed components is essentially a comparison between the beginning of the project and its current status. As shown in Exhibit 4.13, time for transitions and non-instructional activities cut in somewhat to the anticipated 30 minutes a day, and the time for reading and writing varied by book. Instructional time was most threatened by conducting overly ambitious projects in conjunction with the reading and writing activities. The activity of making flags after reading about Betsy Ross, for example, consumed several weeks of first graders' time.

Exhibit 4.12

Peer Tutoring (Tutoring–B)

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components Tutoring-B	
	Grade 1 (1990-91)	Grade 2 (1991-92)
Instruction		
Process		
Classwide peer tutoring in first grade classrooms —30 minute session every day—reading only	Observed	Not applicable
Listening center activities in first grade classrooms —two 30-minute sessions a week	Observed	Not applicable
Cross-age peer tutoring—fifth graders tutor second graders—four 30-minute sessions a week—reading only	Not applicable	Observed. However, it will be dropped in 1992-93.
Self-contained Chapter 1 classrooms with full-time aides	Observed	Observed
Use of METRA reading texts and materials in self-contained first grade classrooms	Began in 1991-92	Not applicable
Precision teaching: one-minute reading aloud assessments of students	Observed in paraprofessional tutoring and cross-age tutoring sessions and in first grade Chapter 1 class.	Observed in some classrooms and in para-professional and cross-age tutoring sessions.

Exhibit 4.12 *(continued)*

Peer Tutoring (Tutoring-B)

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components Tutoring-B	
	Grade 1 (1990-91)	Grade 2 (1991-92)
Instruction (continued)		
Outcomes		
Improved reading performance • Increased standardized test scores • Higher NCEs	Not evident in NCEs or other standardized test scores.	Not evident in NCEs or other standardized test scores.
Improved listening and oral comprehension skills	No observation or information.	No observation or information.
Change in instructional processes	Use of peer tutoring by all first grade teachers—not limited to Chapter 1.	Use of peer tutoring by all first grade teachers—not limited to Chapter 1.
Non-instruction		
Staff development	Chapter 1 sponsored a series of in-service training on all aspects of Chapter 1 instruction.	Chapter 1 sponsored a series of in-service training on all aspects of Chapter 1 instruction.
Increased emphasis on outreach to parents	No action.	Parent newsletters and parent-sponsored Chapter 1 lending library and book discussions were organized by the school. Chapter 1 coordinating teacher reports that "a lot of parents were involved in the library and book groups".
Increased self-esteem for fifth grade tutors	Not applicable.	Tutors report that kids feel "better about themselves."

Exhibit 4.13

Chapter 1 Club After-School Program (Extended Time–A)

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components
Instruction	
Process	
Thirty minutes per day of reading and reading-related instruction, after each school day is over	Less actual time (5-10 minutes) given transitions and non-instructional activities.
Introduction to the book, discussion of new vocabulary and story comprehension	Amount of actual time depends on complexity of book and schedule for projects. (Range 1-3 days).
Writing tasks related to the story (two days), rewriting and revising (one day), and illustrating (one day)	Amount of actual time depends on complexity of book and schedule for projects.
Related projects to reinforce learning (e.g., making a flag after reading about Betsy Ross)	For the first graders (1990-91), the project became a dominant part of the strategy. By the time students were second graders (1991-92), the principal had re-thought the role of the projects and has de-emphasized them.
Outcome	
Improved student reading performance in regular classroom settings	Data not yet available.
Improved student interest in reading	In both years, anecdotal evidence suggest improved student interest in reading.
Improved student writing skills	In both years, anecdotal evidence suggest improved student writing skills.
Non-instruction	
Improved self-esteem and self-confidence of participating students	Program staff believe that the program accomplishes this objective.

Exhibit 4.13 *(continued)*

Chapter 1 Club After-School Program (Extended Time–A)

Grade 1 (1990-91) and Grade 2 (1991-92)

Desired Components	Observed Components
Non-instruction (continued)	
Improved social skills and interaction	Program staff believe that the program accomplishes this objective.
Improved parental involvement and interest in child's learning	Not observed nor described by program staff in year 1. At the end of year 2, the school principal was taking steps to increase parent involvement.

As students moved from the first into the second grade, the major changes in the Chapter 1 Club were less time on project activities (such as the flag making) and an increased emphasis on writing. Although club members have always maintained a writing journal of their activities, program organizers are undertaking more projects that involve writing. For example, students presented a play as the final club project for the 1991-92 school year. Rather than rely on a previously written play, the students created their own production, including writing dialogue and creating a story board to assign the dialogue to action. Two other changes are under consideration for the program: expanding cross-age tutoring in the Chapter 1 Club to more grades (currently fifth grade students tutor first grade students) and increasing the involvement of parents as volunteers in the club. The lead teacher sees this as a way to expand the program to more students without needing to hire additional instructional aides.

Continuity of services for students in the Chapter 1 Club is provided informally by the instructional aides who work in the regular classrooms during the school day and serve as teachers in the Chapter 1 Club after school. Concerns about whether more formal coordination was needed have evolved over the years. Initially designed as an enrichment program "above and beyond" classroom activities, the Chapter 1 Club involved regular classroom teachers only in the selection of students according to Chapter 1 guidelines. As regular classroom teachers became curious about (and somewhat resentful of) the new special program, more outreach efforts with regular teachers were undertaken.

The second extended time program, the summer migrant program, is an eight-week (40 day) summer school, with core academic subjects covered each morning. Three afternoons a week are spent on such specialty areas as art, music and computers. One afternoon is spent on swimming skills, and the remaining afternoon is used for educational field trips. Class size averages around 25 students; most classrooms have an aide as well as the regular classroom teacher. The children observed during the summer of 1991 had just completed third grade, while those observed in the summer of 1992 had just completed fourth grade. Several changes were made in the program from one summer to the next. Four of the six teachers were replaced because the principal thought they used too many ditto sheets and had been too harsh with the students. Instructionally, fourth graders are doing more writing and more inventive computer-assisted instruction this summer than last summer. The enrichment experiences continued. There is little explicit coordination with the regular year program nor is it assumed to be necessary because only a handful of students attending the summer session are settled out migrants who live year-round in the community.

Special Topics Across Special Strategies

The 10 special strategies vary in their purposes, magnitude and scope of intervention. Some are designed to restructure schools, while others simply supplement regular classroom instruction. Most appear, however, to share two characteristics in common: staff development needs and an increased emphasis on the role of parents in their children's education. Each topic is discussed below.

Staff Development Needs

Special strategies require staff to perform in ways that differ from current practice or in ways for which they have not been trained. Ongoing staff development is a necessary condition for successful implementation.

For such philosophical approaches as CES, Comer and Paideia, the success or failure of implementation appears to depend upon the ability of the staff to gain a clear and coherent understanding of the model's vision in an effective school and to translate this vision into instructional practice. For Success for All, staff in-service involves formal training in classroom instructional strategies and specific training for the new curriculum that is the core of the program.

Successful implementation of Chapter 1 schoolwide projects also is linked to the provision of significant resources for staff training in classroom management and specific instructional techniques (such as language arts, higher order thinking skills, and assertive discipline). It also requires in-service to foster collaborative staff interactions for site-based management and an integrated cross-grade curriculum.

Most adjunct programs, with the notable exception of Reading Recovery's extensive one-year training, require modest amounts of staff development targeted on those few staff who are carrying out the program. Because integration with regular classroom instruction is a continuing concern, ongoing awareness training for regular classroom teachers is also needed.

The specific in-service activities undertaken by each strategy and school are displayed in detail in Exhibit 4.14. Keeping in mind that for most program types the -A school (e.g., CES–A) is generally more completely implemented than the -B school (e.g., CES–B), the exhibit allows the reader to trace the role of staff development in implementation. While extensive staff development does not ensure programs will be implemented well, more of the well-implemented sites have had more staff development about the special strategy than the other sites.

Extent of Parent Involvement

Parents' involvement in their children's education is increasingly viewed as important for children's success in school, especially in the early years. Parent involvement is perceived as an explicit

Exhibit 4.14

Special Strategies Staff Development Activities by Type of Program

Type of Program	Sites	Provider/Process	Number of Staff
Philosophical Programs			
Sizer's Coalition of Essential Schools	CES-A	Training was held at Brown University, in addition to staff development retreats. New teachers in 1991-92 report that they have not had any "outside" staff development training in Coalition principles. The program coordinator, however has provided some training to the new program teachers.	All staff
	CES-B	Workshops were offered at Brown University in 1990-91. Both formal and informal staff development were provided for staff. Training included a full staff in-house training at Gheens Foundation on the Sizer program school reform, and *Horace's Compromise*.	Not all staff (90-91) All staff (91-92)
		Staff development related to spreading Sizer principles through the curriculum included district sponsored workshops on team building along with daily planning meetings held in 1990-91. Training in 1991-92 included voluntary two day residential marathon on topics such as team-building, planning and decision-making and overcoming resistance, Coalition Forums and Gheens Academy workshops. The school also has CSLR Fellows who provided some training and mentoring in issues around school reform.	All staff
	CES-C	Workshops were offered at Brown University in 1990-91. In 1991-92, new teachers had not yet received staff development training. According to the principal, some staff were going to the Sizer session at Brown University during the summer of 1992, and some teachers may go to the Fall Forum in Chicago in the fall of 1992.	23 teachers (Brown) 15 teachers (Chicago)
	CES-D	Workshops were offered at Brown University along with visits to other Sizer schools in 1990-1991. The two teams of the school-within-a-school have had extensive in-service.	Less than half the staff

Exhibit 4.14 *(continued)*

Special Strategies Staff Development Activities by Type of Program

Type of Program	Sites	Provider/Process	Number of Staff
Sizer's Coalition of Essential Schools	CES-E	Workshops were offered at Brown University, visits to other Sizer schools in 1990-91, and to regional training.	More than half the faculty
Paideia	A	Training provided through Paideia institute and at faculty retreats at the start and end of each year. Also school holds monthly after-school seminars. Summer training held for eight teachers at St. John's College, NM, each summer and new teachers are assigned a mentor. Focus for training in 1991-92 has been on "coaching."	All staff
	B	In 1990-91 and earlier, training provided by the principal of another Paideia School. Also, external consultant provided 12-hour workshop for all staff in Paideia and 12 hours on Jr. Great Books. Several teachers visited other schools and attended annual conference in Chicago. New staff trained by coordinator and in school year 1991-92 attended a two-day session on the development and leadership required for Paideia. Staff hold weekly planning/coordination meetings. Training focus in 1991-92 has been on "coaching."	All staff for most activities
Comer	A	Staff development includes helping parents to participate in the School Planning and Management Team (SPMT) and helping teachers to conduct the social skills curriculum. Because the school serves as a site for Yale training, faculty and staff receive frequent free in-service from Yale. The comprehensive school plan for 1991-92 listed the following issues as staff development priorities: fetal drug syndrome, peer coaching, degrees of reading power, and whole language approaches to literature. Training also occurred in cooperative learning.	All staff
	B	Little evidence of staff development activities in 1990 and 1991 other than Yale Child Study group visiting the district periodically.	

Exhibit 4.14 *(continued)*

Special Strategies Staff Development Activities by Type of Program

Type of Program	Sites	Provider/Process	Number of Staff
Success for All	A	Ongoing training in the special strategy is provided by developer. School has a total of 6 days of staff development a year. Most was focused on SFA.	All staff
	B	Ongoing training and on-site visits provided by developer. All staff receive two days of training before start of school. Seven teachers took 3.5 days of SFA training as refresher.	All staff Select staff
Schoolwide Programs			
Schoolwide	A	The District offered "schoolwide training" to all participating schools when the program was first implemented.	All staff
		The District usually holds four staff development sessions a year. Topics have included areas such as cooperative learning, alternate assessment, and colleague support.	All staff invited 12-15 attended
		The school also offers internally developed staff training at least once a month during the IPAT time (Instructional Planning and Assessment Time). Topics have included areas such as whole language, literature based reading, and Writing and Reading Across the Curriculum. Computer training is planned for (1992-1993)	All staff invited 12-15 attended
		Twelve teachers from the school are taking part in a graduate credit course offered by the University of Pennsylvania. The course meets every other week and focuses on Whole Language Instruction.	All teachers invited 12 attended
		Five teachers from the school are taking a course in Problem Solving Through Technology offered by Drexel University.	All teachers invited 5 teachers attended

Exhibit 4.14 *(continued)*

Special Strategies Staff Development Activities by Type of Program

Type of Program	Sites	Provider/Process	Number of Staff
Schoolwide	B	About three days of staff development per year on the instructional model, cooperative learning and assertive discipline. Sessions were also held to introduce teachers to a new reading program that was be offered in the fall of 1991 (the World of Reading - literature based basal). Also about 15 hours of staff development was provided during the extended year component.	All staff
		Additional training included several planning periods held to incorporate teaching techniques used by SEED staff into regular classroom teaching.	Select staff
	C	Local training on schoolwide projects, learning styles, instructional techniques, and classroom management via workshops and modelling were held in 1990-91. A total of 16 inservice training sessions were held throughout each school year, some involving the special strategy and others on general training topics. Topics included Chapter 1 regulations, needs assessment, writing objectives or desired outcomes, evaluation, and test results. Other training dealt with developing techniques and instructional strategies and included the following: critical thinking skills, cooperative learning, learning styles for high risk students, math manipulatives, drug and child abuse prevention, cultural awareness, computers, hands-on science methods, positive discipline, and classroom management strategies.	All staff
	D	Local training was held at both the school and district level in 1990-1991. In the 1991-92 school year, the entire school received 3 days of training in cooperative learning techniques and schoolwide project teachers received two days of professional development in topics of their choice. Two more days of in-service were provided through Chapter 1 funds.	All staff

Exhibit 4.14 *(continued)*

Special Strategies Staff Development Activities by Type of Program

Type of Program	Sites	Provider/Process	Number of Staff
Schoolwide/ Extended Year	A & B	In both 1990-91 and 1991-92, staff development includes 14 days of structured training for all teachers including one-week summer program; weekly staff meetings; visits to other program schools; "mentor teachers" who share their expertise and teaching techniques with other staff; and a special MA degree program in Education Administration sponsored in conjunction with the local state university (program limited to 3 teachers per school). Additional funding for staff development provided by a private foundation that made a ten-year commitment to this program.	All teachers, with individual teachers visiting other schools. Three teachers in each school in master's program.
Adjunct Programs			
Reading Recovery	A & B	Becoming a RR teacher requires completion of a year long training program with a certified RR teacher leader. Weekly three-hour collaborative meetings are held and on-site feedback on teaching performance is given. Also a four day summer workshop is held. There are several training sites outside Ohio for teachers to become teacher leaders.	Special RR teachers only
Tutoring	A & B	In Site A, an initial two-day workshop was provided by program developer—only for METRA tutors. In subsequent years, new-staff training has been handled by local coordinator. In 1991-92, Chapter 1 began monthly staff development sessions open to all teachers and tutors. In Site B, initial training was handled by district coordinator and staff from the local university. Each year, Chapter 1 arranges monthly staff development sessions open to all teachers and tutors.	Special strategy tutors only

Exhibit 4.14 *(continued)*

Special Strategies Staff Development Activities by Type of Program

Type of Program	Sites	Provider/Process	Number of Staff
CCC	A	Training for CCC proctors provided by CCC. District CCC coordinator provides inservice sessions on CCC at the beginning of each school year and provides training as needed throughout the year (e.g., new teachers or new software).	CCC proctors/ All staff
	B	Training for CCC proctors is provided by CCC. District provides brush-up training before school begins in the fall, and again when CCC publishes new software.	CCC proctors
Extended Time	A	No special training needed. Chapter 1 aides will attend six whole language development training sessions during the 1992-93 school year.	Chapter 1 aides
	B	None provided for third grade (summer 1991) or fourth grade (summer 1992) teachers. During the 1991-1992 school year, teachers attended several Q-net seminars to learn to implement the principles of The Quality Network, designed by Don DeLay. The Q-net intervention involves a team of teachers who focus on underachieving students. Teachers also meet weekly in teams to discuss individual students.	

objective for the special strategy in 19 of the 25 schools. Exhibit 4.15 illustrates whether parent involvement is an objective either of the strategy or the school and summarizes the extent of parent involvement opportunities. (Specific parent involvement activities are also discussed in the individual program exhibits presented earlier in Chapter 4.)

The Comer School Development Program stands out in its emphasis on parents' roles in all aspects of schooling—including planning, operations, and content of curriculum. The Comer-A school represents the only example of a school trying to change the fundamental nature of parent involvement. To a less extent, the Extended Year Schoolwide projects have significant representation of parents on their site-based management team (5 of 14 members); and other schoolwide projects (such as Schoolwide-A and Schoolwide-B) also include parent representation on school improvement councils. As a group, schoolwide projects are more likely than other strategies to characterize parent involvement as one of several key objectives. Most schoolwide projects have full-time parent/community liaisons, typically paraprofessionals from the community, to help attract parents to the school, encourage their involvement in children's learning, and participate in parent education programs. One schoolwide project (Schoolwide-B) also reached out to the community to identify black role models for its students. "Bringing the Black Boy to Manhood" and "Celebrating Generations of Black Women" each drew 200 parents, as well as students in third through fifth grade.

The increased involvement of parents in schooling is also an objective of the high schools in the Coalition of Essential Schools. In its most active form (CES-B), parents participate on committees, serve as tutors and volunteers, and plan and participate in award banquets. Parents in CES-A successfully lobbied to have the school remain open when it was slated to close. In CES-C, teachers in the ninth grade Phoenix program had a direct line to parents: they called parents once a month about student progress.

Special strategies that supplement the regular classroom instructional program, on the other hand, more rarely identify parent involvement as a key objective. Computer-assisted instruction, METRA and peer tutoring, and Extended Time-A's Chapter 1 Club do not have parents as an explicit part of their curriculum. One major exception among the adjunct programs is Reading Recovery where parents are urged to play a strong instructional role, including daily reading with their children. The summer migrant program (Extended Time-B) is another exception. Its outreach and recruitment efforts among migrant farm worker families and frequent parent meetings (four over the 40-day summer session) illustrate its commitment to its mostly Spanish-speaking and highly mobile clientele.

Comparing the design of strategies with their implementation in schools and classrooms has been the focus of this chapter. Chapter Five continues the analysis of *Special Strategies* students' experiences, including their access to instruction, the quality of classroom teaching, and the relevance of curriculum and instruction to cultural diversity.

Exhibit 4.15

Parent Involvement in Special Strategy Schools

An Objective of the Strategy, School, and Range of Opportunities

Program/Site	Objective of Strategy	Objective of School	Range of Opportunities	
			Narrowly Defined	Multi-dimensional
Elementary Schools				
Philosophical Approaches				
Comer—A,—B	Yes	Yes		Yes
Paideia—A,—B	No	Yes		Yes
Success for All—A,—B	Yes	Yes		Yes
Schoolwide Projects				
Schoolwide—A,—B,—C,—D	Yes	Yes		Yes
Extended Year Schoolwide—A,—B	Yes	Yes		Yes
Adjunct Programs				
Extended Time—A	No	Yes		Yes
Extended Time—B	Yes	Yes		Yes
Computer Curriculum Corp—A	No	Yes		Yes
Computer Curriculum Corp—B	No	No	Yes	
Tutoring—A	No	Yes	Yes	
Tutoring—B	No	No	Yes	
Reading Recovery—A,—B	Yes	Yes	Yes	
High Schools				
Philosophical Approaches				
CES—A,—B,	Yes	Yes		Yes
CES—C,—D,—E	Yes	No		Yes

Figure reads: At Schoolwide Project Sites A, B, C and D, parent involvement is an objective of the special strategy and the school, and the opportunities for parent involvement are multidimensional.

Chapter Five

Children's School Days

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Overview

An evaluation of special strategies must include an examination of the instruction students receive. We conducted observations of students as they proceeded through their entire school days to understand the delivery of instructional services from the child's perspective. We selected two or three children to observe for an entire school day and then followed our Whole School Day (WSD) children for a full day once in the spring of 1991, once in the fall of 1991, and once in the spring of 1992. This chapter summarizes our findings from those observations for students who were first and third graders when we first met them in the fall of 1990. The Whole School Day data serve several purposes:

- to describe aspects of school experience that affect individual children, including patterns of instruction, access to academics, and instructional quality;
- to illustrate the state of the art of instruction in our sample of Special Strategy schools; and
- to examine instruction as received; that is, from the child's perspective.

The chapter begins with a description of why we observed individual children, who we observed, and what we did when we conducted our child-level observations. It continues with a discussion of what we learned about the access of children to academic instruction and the balance between academic subjects and non-instruction. Next we look at teaching behaviors, and explore how teachers manage (or mismanage) the dilemmas of individualized attention versus group processing and of flexibility versus routinization. We then discuss examplars of quality teaching we observed. Rounding out the chapter is a special section on the extent to which programs incorporate cultural diversity into classroom practices.

These are among the highlights of our explorations:

- Students' school days are often bleak and tedious, and many students have limited instructional interaction with either teachers or other students.
- Elementary school students have widespread access to such basic subjects as reading/ language arts and mathematics, but uneven access at best to other vital curricula, including science, social studies, computer instruction, and writing. Ninety-five percent or more of all students had reading or language arts on observation days, while only 10 percent of second graders and at least 40 percent of fourth graders had social studies.
- The overall picture of classroom life is one in which management drives the education provided, as evident in rigid models of instruction and substantial time spent in transitions, management and interruptions.
- Although many of the *Special Strategies* schools' populations are culturally diverse, the instruction we observed often does not reflect such diversity.

Methodology

The Sample of Students

At the beginning of the study, we selected three children at each urban and rural site to be followed or "shadowed" through the course of the research. The children were in first, third, or ninth grade in the 1990-91 school year and, in addition to participating in a special strategy, they were eligible for Chapter 1, based either on their attendance at schools with schoolwide projects or their test scores (CTBS Reading, Fall 1990). At each site, we attempted to select one child who was at the "top" of the eligible pool, one in the middle, and one whose test scores were among the lowest. (We also selected a "backup" child for each target student in case he or she left the school or was absent for any of our return visits during the course of the study.)

In the urban schools, half the Whole School Day (WSD) students who were followed scored in the bottom of the achievement distribution on the CTBS (i.e., from the 1st to 18th percentile). In rural settings the majority of students scored between the 19th and 35th national percentile in reading and at the 36th national percentile or better in mathematics. Exhibit 5.1 shows the actual percentile groupings.

Additionally, we attempted to select students who represent the range of youngsters who benefit from educational services provided in special strategies in terms of individual and social characteristics as well as racial, ethnic, and cultural diversity. Of the 70 children, 23 were White, 37 Black, 6 Hispanic, 3 Native American, and 1 Asian. Fifty-three percent of the WSD students were girls and 47 percent were boys. The diversity of the WSD students, which roughly reflects the

Exhibit 5.1

WSD Students in Special Strategies CTBS Reading and Math Scores

PERCENTILE GROUPING	URBAN (N=36)				SUBURBAN/RURAL (N=34)			
	Reading		Math		Reading		Math	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1-18	19	56%	18	50%	10	29%	5	15%
19-35	9	26%	8	22%	17	50%	12	35%
36 & over	6	18%	10	28%	7	21%	17	50%
Total	34*		36*		34**		34**	

* Percentages based on scores for 34 students in reading and 36 in math, respectively.
** Percentages based on scores for 34 students in reading and math, respectively.
Source: *Special Strategies for Educating Disadvantaged Children*, 1992.

diversity of the population of the schools in the study, is shown below in Exhibit 5.2, which presents student race/ethnicity by type of environment (urban/rural) and by grade level.

Methods of Conducting Whole School Day Observations

At each school site, a researcher spent an entire day following one of the target children during each visit. To the extent possible, the same researcher continued with the child at each time point so that each child and the classroom teachers became comfortable with a familiar face. The process of shadowing entailed sitting as unobtrusively as possible in the classroom throughout the school day, following the target child to pullouts such as Chapter 1 or computer lab, and observing her or his work in the classroom. All academic subjects were observed, as were some electives, at the discretion of the observer. The notes taken by observers were anecdotal and open-ended, and focused on the child's actual activities, participation and level of engagement in class, and the extent and type of interactions with adults and peers.

At each time point, the observer also interviewed the child's parents (if possible), the classroom teacher and other teachers who regularly see the child, and the child him or herself. We attempted to get multiple perspectives on the child—what is she or he like at home, what different teachers think about the child's capacity, talents, and interest in school. We talked with parents about

Exhibit 5.2

Race/Ethnicity of Whole School Day Students

Race/Ethnicity	Urban						Suburban/Rural					
	Grade 1		Grade 3		Grade 9		Grade 1		Grade 3		Grade 9	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
African-American	15	39%	10	26%	4	11%	2	6%	5	15%	1	3%
Hispanic	1	3					2	6	3	12		
Native American									3	9		
Asian	1	3										
Caucasian	1	3	1	3	4	11	11	32	1	3	5	15
Total	18	48	11	29	8	22	15	42	12	39	6	18

In urban special strategies, half of the WSD students score in the bottom of the achievement distribution on the CTBS in reading and math (i.e., from the 1st to 18th national percentile). In rural settings, the majority of students score between the 19th and the 35th national percentile in reading and at the 36th national percentile or better in math. The distributions of reading and math scores are shown in Table 5.1.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

the special strategy and how they thought it had affected their child, and we sought their opinions of the classroom and the school. We asked individual children what they liked and disliked about the school and the special strategy and attempted to find out their ambitions and dreams for the future. We also collected samples of the written work the children did, ranging from completed worksheets to creative stories—thus assembling an informal portfolio that helped inform us of their academic status and progress.

We want to make clear that our reflections in this report are based on two days of observation for each child in the 1991-92 school year. Although this number may seem small, it represents random days in each student's school year. As shown in Exhibit 5.3, we have a total of 62 second grade days and 43 fourth grade days. Sometimes the days are distinctly unusual, and include district-wide testing, or special holiday events and assemblies, and sometimes the days seem to include more ordinary instructional routines and events.

When we selected students for the Whole School Day component of the study, we anticipated some student mobility, and we selected backup students as well. Nonetheless, the actual number of completed WSDs varies at each time point. Students did in fact move, transfer to other schools, or get sick. Exhibit 5.3 summarizes the number of completed observations at each time point and for each cohort of students. This number represents the *number* of WSD child observations, and not necessarily observations of the *same* children. Student mobility affected our WSD sample: We have observations at three points in time for 21 of 31 first graders and for 15 of 22 third graders.

The sections that follow are based upon two approaches to analyzing the Whole School Day data. Each WSD narrative was read, reviewed, and coded for subject variables as well as for patterns and themes of instruction. The narratives shared the same format: a brief physical description of the school and classroom; then a chronology of the school day, including running descriptions of the child's behavior, the various subject areas and such non-instructional activities as recess, unscheduled whole-class bathroom breaks, and coloring; and finally comments about the child from the teacher(s), parent(s), and the observer.

The first section, on the nature of instruction, is based primarily upon the chronological components of the WSD narratives. Data about the subject areas students encountered were extracted from each narrative. We focus in this section on the subjects students encountered. We had inconsistent data on the amount of time spent on each subject because so many students had choices of which subjects to work on in individual seatwork; as a result, identifying start and end times of particular subjects was problematic.

Exhibit 5.3

Number of Students Shadowed at Each Data Collection Point

	Spring 1991	Fall 1991	Spring 1992
First Grade Cohort[1]	25	31	31
Third Grade Cohort[2]	22	22	21
Total	47	53	52

1 Students were in first grade during 1990-91 school year and were in second grade during 1991-92 school year.

2 Students were in the third grade during the 1990-91 school year and were in the fourth grade during the 1991-92 school year.

Source: *Special Strategies for Educating Disadvantaged Children*, 1992.

The second section, on the patterns of teaching, is based upon systematic review of each narrative individually and then across all narratives; this approach is based upon the data analysis techniques described by Miles and Huberman (1984). We were particularly interested in interactions between the target child and either her or his teacher or other children, for example, so our coding scheme included interactions. This review process allowed us to generate themes and categories, and secondary categories as appropriate. The narratives themselves suggested patterns of teaching.

The third section, on indicators of instructional quality, is also based upon systematic review, content analysis, coding, and re-reading for patterns. We based our content analysis upon the work of Slavin (1987); this work has informed much of the data collection in this study. Each narrative was coded for references to specific content, academic focus, varieties of activities used in one lesson, student participation, relevance to student experience, and teachable moments.

One result of this total immersion in schoolroom life was a rich and frequently surprising array of knowledge about instruction and curriculum, about teachers and classrooms, and about beautiful and sometimes troubled children lost and found in the educational system.

The Nature of Classroom Instruction

In this section, we discuss what children encounter in their regular school days. One might imagine that in a typical day, elementary school students would spend some time engaged in reading and language arts related activities, some time in math, science, social studies, and that they would also participate in such elective subjects as music, art, or physical education. The arrangement of these and other subjects might differ from classroom to classroom and school to school, but generally, we anticipated that most children, and most school days, would cover these subject areas.

Our discussion begins with a summary of the academic subjects and non-academic activities experienced by our Whole School Day students, and then continues with illustrative examples of the quality of instruction.

Academic Instruction for Second Graders

Exhibit 5.4 summarizes the different academic subject areas our first grade cohort (in second grade for the 1991-92 school year) experienced during each of the WSD observations. Generally, the lessons we observed were easily grouped into the various subjects listed. Unless otherwise noted, when a lesson included two or more areas of the curriculum, we used as the primary purpose the activity in which our WSD student was engaged.

Our second year of classroom observations reinforces the picture of instruction that began to emerge after our first round of classroom observations (completed in Spring 1991): reading and language arts instruction represents the most commonly taught area.

The exhibit illustrates that nearly all students have reading and language arts instruction, but that the percentage of students who have other subjects is less nearly universal. Included under the reading/language arts umbrella are vocabulary, phonics, reading, spelling, oral language, and writing activities. The fact that reading and language arts is so prevalent is not a surprise; for primary grade students, time spent in reading and acquiring decoding skills is a necessary prerequisite for grasping other elements of the curriculum.

Most students had access to subject areas considered basic to the academic enterprise—reading/language arts and math. Twenty-three, or 74 percent, of the 31 second graders had both reading and math in the fall and spring. But when children miss one of these two subject areas, math is the likelier candidate. Across all three WSD visits, no more than 6 percent of students ever failed to have reading while as many as 26 percent of students had no math instruction during one of our visits. In published time schedules, all schools indicated that math was taught daily. Only some of the omissions have reasonable explanations—one WSD occurred on Halloween, and the school staged a

Exhibit 5.4

Second Graders' Access to Academic Instruction

Subject Area	Fall 1991[1]		Spring 1992	
	Number	Percent	Number	Percent
Reading/Language Arts	31	100%	29	94%
Seatwork[2]	27	87	22	71
Elective(s)[3]	26	84	18	58
Math	23	74	25	86
Writing	12	39	10	32
Science	11	35	14	45
Social Skills[4]	8	26	5	16
Computer Class	5	16	2	6
Social Studies	3	10	3	10
Chapter 1 Pullout	3	10	6	19
Testing	2	6	10	32

1 Two Whole School Day (WSD) students had a substitute or a student teacher.

2 Seatwork is defined as non subject-specific work assigned to students to complete at their seats, minus any instructional interaction from the teacher or other students, from a workbook or the blackboard.

3 Electives include art, music, library, and/or physical education.

4 Social skills include lessons on how to get along, how to be responsible citizens, and other social behavior topics.

Exhibit reads: All students in the fall of 1991 had reading/language arts instruction sometime during the school day observed, and 87 percent of the students had seatwork.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

schoolwide parade that consumed most of the students' time. One observation occurred on a day of district-wide testing, and students' regular math instruction was canceled. In another school, students were rehearsing for the next day's Christmas concert.

During second grade, in addition to reading and math, another key instructional element is learning to write. Current emergent literacy research (Daiute, 1992; Dyson, 1988) highlights the importance of early and frequent practice with both reading and production of text. We anticipated finding ample evidence of classrooms with time set aside especially for mastery of the writing process. Access to writing instruction is evident for over 30 percent of WSD students in both visits. In one class, students routinely draft stories and "publish" them by typing them on the classroom's computer, and in another classroom, students wrote Thanksgiving couplets.

We grouped into one category non-subject specific seatwork—that work assigned to the students to complete at their seats, minus any interaction with the teacher or other students, from a workbook or the blackboard. Often seatwork consisted of work in reading/language arts and math; the workbook pages or problems were written on the board. The majority of students had such seatwork—nearly 90 percent in the fall and 71 percent in the spring observations. Seatwork alone is neither a positive nor a negative activity; students often spend productive time working individually at their desks, practicing the application of lessons presented earlier. Many of our observations, however, suggest that for some students, the bulk of instruction is situated in seatwork. In such cases, teachers read directions aloud from the teacher's guide, and assign students workbook pages and dittoes, and that represents the "instruction" for that particular subject.

Nearly 40 percent of students also had some time set aside for writing instruction in the fall, although the percentage decreased to 32 percent in the spring. We characterized an activity as writing only when it involved creation of text. Writing phrases or sentences using new vocabulary or spelling words, for example, was considered language arts instruction, and not writing.

Thirty-five percent of second graders had science lessons in the fall, and 45 percent did so in our spring visits. Some students have had science lessons each time a WSD observation has been conducted, while others may have had science, but not on any of the days we have visited.

From fall to spring, the proportion of students who had lessons on social skills fell from 26 to 16 percent. Social skills include instruction on social behavior and rules in the school setting. The decrease may also suggest that second graders need less time as the year progresses on such lessons as "How to be friends with your classmates," and "Taking responsibility for your actions on the playground."

Sixteen (Fall 1991) and six (Spring 1992) percent, respectively, of the second grade students had computer instruction, including students who visited grade-specific Writing-to-Read labs. Others attended computer labs on a weekly basis. For most students, computerized instruction consisted of drill-and-practice math or vocabulary games, with one or two exceptions. Occasionally, our WSD students played computer games. Use of software such as Logo or other computer-programming instruction was rarely observed. [Note that the *Special Strategies* schools selected for their use of computer-assisted instruction are schools in which we began to follow third graders now in fourth grade.]

Students' access to other subjects, however, such as social studies, is more sporadic. Social studies was offered to a relatively small proportion of our second graders. For example, only 10 percent of students had any social studies in either the fall and spring visits (of the 1991-92 school year). While we might concur with the overwhelming evidence from our WSD observations that social studies appears to be less critical than reading or math, we cannot help but notice that students are far more likely to have one or more electives than they are to have any social studies. During our fall visits, 18 students (58 percent) had one elective, seven (23 percent) had two electives, and one student's day included art, music, and physical education. Eighty-four percent of our second graders had at least one elective.

Relatively few second graders had any Chapter 1 or other resource pullout instruction—only 10 percent of students in the fall and 19 percent in the spring. Most of our second grade students, however, are in *Special Strategies* schools with schoolwide programs. Because pullout instruction was rarely a daily event, the difference from fall to spring is attributable to the different days we visited rather than to changes in students' identification as Chapter 1 students.

Non-instructional Activities for Second Graders

During the school day, students also spent a considerable amount of time on non-academic matters, ranging from opening exercises each morning to transitions between subjects, coloring, and unscheduled trips to the restroom. We also included as non-academic activity time spent in behavioral management or other discipline-related activities. Only when the amount exceeded ten percent of the school day did we add non-academic time to the list of subject areas experienced by a student. Exhibit 5.5 summarizes students' participation in such non-academic activities. Ninety percent of our WSD students in the fall, and 77 percent in the spring had non-academic time; non-academic activities were calculated as the number of students who experienced housekeeping and/or non-academic activities. We might expect second graders to need time for transitions, management, and

Exhibit 5.5

Second Graders' Access to Non-Academic Activities

Activity	Fall 1991		Spring 1992	
	Number	Percent	Number	Percent
Housekeeping[1]	25	81%	19	61%
Non-instruction[2]	14	41	15	48
Special Events[3]	5	16	4	13

[1] Housekeeping refers to opening announcements, presentation of schedules, discussion of notices to send home, and other administrative procedures.

[2] Non-instruction includes time in transition, unscheduled bathroom breaks, coloring and unstructured waiting time.

[3] Special events are such activities as school-wide or grade level assemblies, parades, fairs or field trips.

Exhibit reads: Eighty-one percent of the students in the fall of 1991 had some portion of the observed school day spent in housekeeping activities.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

non-academic activities like coloring, and that the need would diminish as the children become more familiar with the behavioral norms of school life. When examining the two separate non-instructional categories, however, it was apparent that while fewer students experience housekeeping in the spring visits than in the fall, more students encountered other non-instructional activities in the spring. What was clear was that our sample of students spent a noticeable amount of time in activities with no apparent academic intent.

Academic Instruction for Fourth Graders

In many respects, the data we have from our observations of fourth graders are quite similar to the data from the second graders. Exhibit 5.6 summarizes the different subject areas our third grade cohort (in fourth grade for the 1991-92 school year) experienced during each of the WSD observations.

Exhibit 5.6

Fourth Graders' Access to Academic Instruction

Subject Area	Fall 1991[1]		Spring 1992	
	Number	Percent	Number	Percent
Reading/Language Arts	21	95%	20	95%
Seatwork[2]	20	91	16	76
Math	18	82	20	95
Elective(s)	16	72	16	76
Science	12	55	11	52
Writing	11	50	10	48
Social Studies	9	41	13	62
Computer Class	8	36	8	38
Chapter 1 Pullout	5	23	3	14
Social Skills[3]	3	14	3	14
Testing	3	14	3	14

1 One WSD student had a substitute or a student teacher in the fall, while two students had a substitute or a student teacher in the spring.

2 Seatwork is defined as non subject-specific work assigned to students to complete at their seats, minus any instructional interaction from the teacher or other students, from a workbook or the blackboard.

3 Social skills include lessons on how to get along, how to be responsible citizens, and other social behavior topics.

Exhibit reads: Ninety-five percent of the fourth grade students had reading/language arts instruction during the school day; 50 percent also had writing instruction.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Once again, most students had reading and language arts instruction, and most fourth graders had math instruction as well. By the time children were in fourth grade, an increasing amount of time was spent "reading to learn" and not "learning to read" (Chall, 1983).

The lessons we observed did not always fall neatly into an academic subject category; this happened with greater frequency in the fourth grade classrooms than in the second grade rooms. When it did, we tried to use the classroom teachers' remarks as our guidelines. In one classroom, for example, the teacher introduced a long-term project by saying that it would include social studies, science, writing, and reading. The first part of the lesson dealt primarily with social studies, and we marked that portion of the day as social studies. Later in the day, when students continued work on the same project but were concentrating on the environment and ecosystem, the activity was characterized as science.

Most students had access to reading/language arts and math. Ninety-five percent had reading, and no less than 82 percent encountered math during either visit. Only four fourth graders did not have both reading and math in the fall and spring.

For fourth graders, we also grouped into one category non-subject specific seatwork—that work assigned to the students to complete at their seats, minus any interaction with the teacher or other students, from a workbook or the blackboard. In one class, for example, the teacher passed out a Christmas theme ditto sheet and read the directions aloud: "Find the hidden words," and told students to "color your picture" once finished with the word puzzle. The class worked on the ditto for over 50 minutes, with no other teacher input. Except for a brief conversation with another teacher who came to her door, the teacher sat at her desk and worked alone.

More fourth graders—91 percent in the fall and 76 percent in the spring—encountered seatwork than science, social studies, or writing. This seems high, especially when contrasted with the proportion of students who experience other subjects with some interactive instruction.

Even though our WSD observations generally indicated that fourth graders' days included more academic subjects, it was not because they had fewer electives. In fact, nearly as many fourth graders as second graders had one or more electives: 72 percent in the fall and 76 percent in the spring. Here too, students were more likely to have had an elective than such core academic subjects as science and writing.

Access to other subjects varied across schools, although much less widely than for second graders. A greater proportion of fourth grade students had science, social studies, and writing at both 1991-92 visits. The number of students who experienced science instruction was much greater for fourth graders than for second graders; 55 percent of fourth graders had science lessons in the fall,

compared to 52 percent did so in our spring visits. Approximately 50 percent of students also had some time set aside for writing instruction, including writing poetry, stories, or other assignments in both visits.

Forty-one percent of students had social studies in the fall, and the number increased to 62 percent in the spring visit. Social studies remains less prevalent than reading or math, but it seems to be well integrated into students' days.

Just over one-third of our fourth grade students spent some time in computer-aided instruction (36 percent in the fall and 38 in the spring). While most students' computer experiences were limited to drill-and-practice routines in either math or language arts, two students who attend a summer migrant program used a custom-designed program to write and illustrate stories.

Relatively few fourth graders had any Chapter 1 or other resource pullout instruction—only 23 percent in the fall and 14 percent in the spring. Our fourth grade sample included one student who participated in her school's Creative Potential and Talent (CPT) program. Overall, fourth graders encountered a greater number of academic subject areas in their WSDs than did the younger students.

Non-instructional Activities for Fourth Graders

Exhibit 5.7 illustrates the proportion of fourth grade students who encounter opening exercises each morning, transitions between subjects—and in some cases, transitions between physical classrooms as students change teachers for some subjects. Across both visits, no less than 68 percent of students spent time engaged in housekeeping activities; only half (50 percent in the fall, and 37 percent in the spring) experienced non-instructional activities. When we calculate the proportion of students who experienced one or the other non-academic activity, the percentage is close to 80 percent for fall and spring (82 and 78 percent, respectively).

Changes in Academic Instruction from Grade 1 to 2 and from Grade 3 to 4

The profiles we have of our WSD students suggest there are indeed some differences between topic offerings for the two grade levels. Exhibits 5.8 and 5.9 each illustrate the number and percent of students who experienced the various academic and non-instructional areas in Spring 1991 compared to Fall 1991 and Spring 1992.

First grade cohort. Exhibit 5.8 presents data on academic instruction from all three WSD observations of the first grade cohort. There are surprisingly few differences across grade levels for these students. Students continued to experience reading / language arts, math, and social studies in

Exhibit 5.7

Fourth Graders' Access to Non-Academic Activities

Activity	Fall 1991		Spring 1992	
	Number	Percent	Number	Percent
Housekeeping[1]	15	68%	15	71%
Non-instruction[2]	11	50	7	33
Special Events[3]	2	9	3	14

[1] Housekeeping refers to opening announcements, presentation of schedules, discussion of notices to send home, and other administrative procedures.

[2] Non-instruction includes time in transition, unscheduled bathroom breaks, coloring and unstructured waiting time.

[3] Special events are such activities as schoolwide or grade-level assemblies, parades, fairs or field trips.

Exhibit reads: Sixty-eight percent of the students in the fall of 1991 had reading/language arts instruction sometime during the school day observed, and 87 percent of the students had seatwork.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 5.8

Cross-Grade Access to Academic Instruction First Grade Cohort[1]

Subject Area	Spring 1991[2]		Fall 1991		Spring 1992	
	Number	Percent	Number	Percent	Number	Percent
Reading/Language Arts	25	100%	31	100%	29	94%
Elective(s)	21	84	26	84	18	58
Math	19	76	23	74	25	86
Seatwork	14	56	27	87	22	71
Science	8	32	11	35	14	45
Chapter 1 Pullout	7	28	3	10	6	19
Social Studies	4	16	3	10	3	10
Computer Class	3	12	5	16	2	6
Testing	0	0	2	6	10	32
Writing[3]	-	-	12	39	10	32
Social Skills[4]	-	-	8	26	5	16

1 Students were in first grade during 1990-91 school year and were in second grade during 1991-92 school year.

2 Five WSD students had substitute or student teachers in our spring 1991 visit; two had a substitute or student teacher during the fall 1991 visit.

3 Writing as a separate category of instruction was added during the second year of classroom visits.

4 As a result of our first year of field work, a category was added to capture time spent specifically on social skills.

Exhibit reads: In the spring of first grade and fall of second grade, all students continued to have reading/language arts instruction during the Whole School Day observation.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

approximately the same proportion. A somewhat greater percentage of students had science in the spring of their second grade (45 percent) than in either first grade or the fall of second grade.

Exhibit 5.9 summarizes the non-academic activities across both years. While the proportion of students who spent time in housekeeping activities declined, the other percentages remained fairly stable.

Exhibit 5.9

Cross-Grade Access to Non-Academic Activities First Grade Cohort[1]

Activity	Spring 1991		Fall 1991		Spring 1992	
	Number	Percent	Number	Percent	Number	Percent
Housekeeping	25	100%	25	81%	19	61%
Non-instruction	10	40	14	41	15	48
Special Events	5	20	5	16	4	13

[1] Students were in first grade during 1990-91 school year and were in second grade during 1991-92 school year.

[2] Housekeeping refers to opening announcements, presentation of schedules, discussion of notices to send home, and other administrative procedures.

[3] Non-instruction includes time in transition, unscheduled bathroom breaks, coloring and unstructured waiting time.

[4] Special events are such activities as schoolwide or grade-level assemblies, parades, fairs or field trips.

Exhibit reads: From the spring of first grade to the fall of second grade, the percent of children having housekeeping tasks sometime during the school day dropped from 100 percent to 81 percent.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Third grade cohort. As is true for the first grade cohort, reading/language arts continues its near universal appearance. The cross-grade data for our third grade cohort are presented in Exhibit 5.10. Most fourth graders also had access to math instruction. The chief differences in academic instruction were in access to subjects such as science and social studies, both of which were far more available to our students as fourth graders than when we observed these students in third grade. Our students also had greater access to computer instruction as fourth graders. Another change was in the amount of time spent in seatwork.

Exhibit 5.11 summarizes the non-academic activities across both years. As is true for the first grade cohort, the most notable difference was in the proportion of students who spent time in housekeeping activities. A smaller percentage of students had non-instructional time as fourth graders than they did as third graders.

The descriptions presented above focus on our students' access to various instructional areas. But whether students have had a certain subject on any given day tells us very little about the nature of the instruction. The next section presents a discussion of our impressions of the larger patterns.

Patterns of Teaching

A full day of observation consisted of five to seven hours of undergoing the same experiences as an elementary student. During that time, observers noted many classroom-level elements that appeared to facilitate and hinder effective instruction. Our preliminary interpretations encompass both positive and negative classroom experiences. The topics of these observations and our discussion fall into the following categories:

- Instructional Patterns—the instructional patterns or models that frame the entire day;
- Priorities of Instruction versus Management—the shifting emphasis on management or instruction and how that affects classroom life;
- Students' Interactions with Adults—the frequency and nature of students' direct instructional interactions with their regular or other teachers;
- Schedules—the posted (explicit) and actual schedules that drive instruction; and
- Transitions and interruptions—the frequency and nature of transitions from one subject to another and the effect on instruction.

Within each category we highlight how teachers deal with two dilemmas: attention to the individual versus the group and flexibility versus routinization.

Exhibit 5.10

Cross-Grade Access to Academic Instruction Third Grade Cohort[1]

Subject Area	Spring 1991[2]		Fall 1991		Spring 1992	
	Number	Percent	Number	Percent	Number	Percent
Reading/Language Arts	22	100%	21	95%	20	95%
Elective(s)	14	64	16	72	16	76
Math	20	91	18	82	20	95
Seatwork	8	36	20	91	16	76
Science	9	41	12	55	11	52
Social Studies	7	32	9	41	13	62
Computer Class	3	14	8	36	8	38
Testing	4	18	3	14	3	14
Writing[3]	-	-	11	50	10	48
Social Skills[4]	-	-	3	14	3	14

[1] Students were in third grade during 1990-91 school year and were in fourth grade during 1991-92 school year.

[2] Five WSD students had substitute or student teachers in our spring 1991 visit, one student had a substitute or student teacher in the fall of 1991, and two students had a substitute or student teacher in the spring of 1992.

[3] We added writing as a separate category of instruction during our second year of classroom visits.

[4] Social skills include lessons on how to get along, how to be responsible citizens, and other social behavior topics.

Exhibit reads: From the spring of third grade to the fall of fourth grade, virtually all students continued to have reading/language arts instruction sometime during the school day (100 percent of students and 95 percent of students, respectively).

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 5.11

Cross-Grade Access to Non-Academic Activities Third Grade Cohort[1]

Activity	Spring 1991		Fall 1991		Spring 1992	
	Number	Percent	Number	Percent	Number	Percent
Housekeeping	22	100%	15	68%	15	71%
Non-instruction	11	50	11	50	7	33
Special Events	0	0	2	9	3	14

[1] Students were in first grade during 1990-91 school year and were in second grade during 1991-92 school year.

[2] Housekeeping refers to opening announcements, presentation of schedules, discussion of notices to send home, and other administrative procedures.

[3] Non-instruction includes time in transition, unscheduled bathroom breaks, coloring and unstructured waiting time.

[4] Special events are such activities as schoolwide or grade-level assemblies, parades, fairs or field trips.

Exhibit reads: From the spring of third grade to the fall of fourth grade, the percent of children having housekeeping tasks sometime during the school day dropped from 100 percent to 68 percent.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Instructional Patterns and Methods

At the most general level, the instruction we observed followed a paradigm unchanged since the nineteenth century. We saw drill and practice, reciting by rote, seatwork, whole class instruction, copying from the board, copying from the textbook, pencil and paper exercises, and a great deal of tedium. In most classrooms we visited, children spent the largest proportion of available instructional time on reading and language arts, and some time on math. Time spent on other academic subjects, as discussed earlier in this chapter, was much less common than we anticipated. The science instruction that policymakers say is critical to making this country competitive in the twenty-first century was largely absent from our WSD observations.

Additionally, we saw a tendency in many schools to implement innovations in name only, such as cooperative learning, whole language, and higher order thinking skills. We saw students whose desks had been rearranged for group work but whose group work was limited to sharing materials. In another school, teachers attended district-provided staff development on whole language instruction yet continued to teach students phonics, spelling, vocabulary, and grammar, while relying on a basal reading series.

Another integral facet of instruction is the mode of service delivery. Our WSD observations document scant attention paid to the individual learning needs of children, including, for example, the use of small group or one-on-one instruction. The exceptions to this were frequently in the adjunct special strategies, several of which focused on one-on-one instruction or teaming. Here students did experience more individualized attention for the duration of the adjunct or pullout service. Otherwise, however, whole class and individual seatwork predominated.

In many of the schools, we saw a dearth of physical exercise for young children. In some schools, first and second graders were confined to their seats for virtually the whole day—without scheduled physical education or an outdoor recess. We contrast that to another school in which students routinely had three recess breaks, each of which was outside and involved physical activity.

Priorities of Instruction Versus Management

In many classrooms, the day appeared to be one long struggle between the teacher's efforts to deliver instruction and his/her efforts to manage the behavior of the students. Most of our WSD observations, in fact, document the pervasiveness of time spent on non-academic tasks and activities. The observed school days are replete with examples of time lost to the teacher's effort to control students' behavior. This effort tends to be of two different types: teachers struggling to prevent chaos

in their classrooms and teachers whose standards of behavior are so strict that they interrupt instruction frequently to make quiet classrooms quieter. In both cases, the end result was lost instructional time and an intermittent change of focus from academics to behavior and back again. For many teachers, the conflict between instruction and management was resolved by teaching the whole class and assigning individual seatwork.

Every teacher must balance the competing demands of providing a service to many while meeting the needs of a group of individual learners. This dilemma is a familiar one, and it has long represented one of the essential conflicts of teaching. A teacher must manage the activities of 25 to 30 children without excessive routinization and without focusing solely on one child.

In one fourth grade class we visited, for example, the teacher was interrupted repeatedly and frequently by a single student. This student shouted out answers to every question she posed and interrupted any other student's effort to answer. Occasionally, his behavior prompted her to send him outside the classroom for a few minutes to "cool off," but shortly after his return, his interruptions continued apace. Her patience with the disruptive student was remarkable, but at the same time, none of the other 20 children in the room seemed to receive much instruction. (She later discussed with our observer this child's home situation, which clearly has influenced his school behavior.)

This example, though it may represent an extreme on the continuum of individual versus group needs, highlights the tension between providing individualized service and serving a large number of clients. Lipsky (1980), in his discussion of front-line social service workers, describes this dilemma for teachers.

> Teachers should respond to the needs of the individual child; in practice, they must develop techniques to respond to children as a class. . . At best, street-level bureaucrats invent benign modes of mass processing that more or less permit them to deal with the public fairly, appropriately, and successfully. At worst, they give in to favoritism, stereotyping, and routinizing—all of which serve private or agency functions. (p. xii)

Lipsky's characterization helps us understand the struggle teachers routinely face. Yet the sacrifice of instruction to management remains prevalent in too many children's school days.

Interactions with Adults and Others

Many target children and their classmates appeared to be in desperate need of attention from adults. Some demanded it through disruptive behavior; others sought it through attempts to excel academically; sadly, still others neither sought nor received any attention at all. Surprisingly, several children in the fall and spring observations (1991-92) spent their whole school days with virtually no

interactions with teachers. At one site, the observer records the following at dismissal time: "All day long, Natasha did not speak in class, was not called on for any kind of oral response." Another observer comments, "Lavonne's teachers appear to let her go. . . no one notices how little she understands. . . because she does not disrupt the class or call attention to herself."

In some classrooms, individualized interactions are limited to the computer. We also observed children whose teachers began to call on them—much to their surprise—simply because the children were being observed. The whole school days testify that some children who are well-behaved and undemanding are often left alone, without any meaningful instructional—or other interaction—for hours or an entire day.

Schedules

Class schedules serve several functions. They are an accountability device by which teachers indicate to principals, principals to superintendents, and superintendents to school boards that the requisite amount of time is being spent on the requisite content areas. Schedules also reserve time during the day for key academic subjects by putting these subjects into specific time slots, thereby facilitating planning. In many states, schedules also reflect statewide curricular objectives about the subjects—and the amount of time—considered essential.

With all that said, we must note that some teachers appear to be slaves to their schedules, interrupting a lesson that involved extensive preparation or a lesson just getting into a constructive rhythm because "it's time to. . . ." Conversely, in some schools, the published schedules had no bearing on reality; for example, when the schedule said language arts, the children were in fact doing mathematics and some subjects that appeared on the schedules were never observed in the classroom.

Yet for some teachers, a precise schedule seems to represent the antithesis of the intended thematic instructional approach. One teacher who was asked for her classroom schedule commented that she "didn't have a time schedule of 30 minutes for this and 40 minutes for that." Rather, she used an integrated approach, saying that she would "talk about Japan, science, social studies all together and then introduce math."

Pullouts are a special category of scheduling and they are pervasive in some schools. If Chapter 1 is a pullout and a child also spends some time in resource and attends a pullout special strategy, he or she may spend up to an hour a day out of the classroom. It seems unlikely that a child pulled out three times in a single day received a cohesive curriculum in any academic subject and yet that is what happened to many children in CCC-B, a school replete with pullout programs. In one classroom, for example, two or more children were out of the room for a pullout for over two hours

each day; from 10:50 a.m. until 1:15 p.m. the teacher had only a portion of the entire class in her room. This teacher's instructional schedule was driven by pullout scheduling rather than by her own design. She commented that she begins each day with math, both because she loves to teach math and because the students are "all over the place" once the pullouts start.

Transitions and Interruptions

Transitions are constant in elementary schools. There are pullout classes, recesses, elective subjects, and an apparent host of other reasons children line up at the classroom door five or more times a day. We estimate from the WSD data that about ten percent of time in elementary schools routinely goes to transitions; in some schools it is much more. In one school where the transition problem was "solved" by having the teachers move from room to room instead of the children, the teachers reported using fewer materials in their instruction because of the difficulty of transporting things—a case of the cure being at least as bad as the disease.

While it is inevitable that transitions take at least some time from instruction, it is not inevitable that external interruptions harass the learning process throughout the day, but that too is a prevalent pattern in some schools. Messengers from the office and loudspeaker intrusions are the most common with some whole school days documenting several (apparently needless) interruptions in a single day. Disruptions in the halls also halt instruction or distract the students—these include children fighting, adults punishing children, and adults talking to each other. While there certainly can be transitions and interruptions within each classroom, the evidence from the WSD narratives indicates that the tolerance for such intrusions into instruction reflected school level norms.

Indicators of Instructional Quality

The primary purpose of our time spent in classrooms was to examine the instructional services available and delivered to children in *Special Strategies* schools. Our discussion about the subjects our students encounter represents one way to describe the instructional services provided. The analysis of how teachers manage (or mismanage) instructional priorities is another. In this section, we present excerpts from our observations that serve as exemplars of the range of teaching experienced by our WSD students.

We have witnessed instruction at both ends of the quality spectrum. Some lessons we have observed have been completely captivating, and others have been little more than exercises in rote memorization. As we reviewed Whole School Day narratives completed by our field research teams, we realized that when instruction was engaging, when students were involved, and when learning was

the actual task at hand there were several teacher behaviors and uses of time that differentiated more from less effective instruction. Some teacher behaviors are derived from the work of Robert Slavin (1987) on models of school learning, and they include the following:

- demonstrating mastery of content,
- emphasizing academic focus,
- seeking evidence of learning,
- using a variety of activities,
- elicitomg active participation of students,
- relating learning to student experiences, and
- capitalizing on teachable moments.

Each of these is operationally defined below and illustrated with examples from the Whole School Days.

Mastery of Content

We expected our elementary teachers to have command of the subjects they teach[1]. One fourth grade teacher began her class with math every morning, and once she had reviewed her plans for the day and written problems on the board, she conducted the lesson without returning to her desk or to her notes. Her mastery of the material was amply evident. She clearly knew where she wanted the class to end up after any given lesson, and both the planned and spontaneous questions and problems she posed to students reflected her goals.

What we did not expect, however, was the large scale reliance on teachers' guides and manuals, not only in science and math instruction, but in reading and language arts instruction as well. Use of the teacher's manual is not in and of itself a negative activity; in fact, such guides often provide valuable planning and assessment advice. Yet when classroom teachers themselves do not understand the content or directions in the manuals, or when teachers are unable to explain a new concept or lesson to the class, the teacher's grasp of the material must be questioned. The following excerpt, from one student's day at SFA-B, details this teacher's efforts to teach the class about differences between fact and opinion.

[1]We were aware of the research evidence that indicates a surprising number of elementary teachers are themselves underprepared academically, particularly in math and science (Murnane, Singer, Wilted, Olsen & Kemple, 1991), and we anticipated observing stronger reading and language arts instruction.

1:53 p.m. A worksheet is passed out that centers on fact vs. opinion. The teacher defines opinion as "the way you think or feel." . . .She leads the class through a discussion. . . She classifies one student's statement that she loves to go to school as an opinion.

Each group of students (sitting in clusters of desks) gets a group of sentences, each on a strip of paper. Each child gets one strip and must decide if his/her sentences are facts or opinions—or a new category the teacher adds: a non-fact, for facts that are not true. The children are completely confused, including the WSD child, Rodney.

Academic Focus

Perhaps it seems self-evident that instruction generally has an academic focus. Lessons are designed to teach children new skills and concepts, and to provide them with opportunities to practice what they are learning. The following two examples, both situated in computer classes, highlight the difference between lessons with and without an academic focus.

In the first lesson, students at Extended Time–B, a summer program for children of migrant farm workers, begin work on stories they had begun the day before. The class is using "Once Upon a Time," an interactive software package that combines images and text with audio instructions for the user. One-third of the class is Spanish-speaking, and the teacher has modified the software program to produce a Spanish language version that has both written text directions and a voice component using the principal's voice. Children must both select an action with a mouse and type in the word, which reinforces their language skills.

9:37 a.m. Mr. H. informs the class that they will now work on their stories on the computers. The program allows the user to write a story as if she or he were traveling in a time machine. The student chooses a "place" he wants to go to and the computer displays a background of that setting (e.g., wild west, medieval castle, space colony, and so on). Then the student selects "objects" to place in the scene (e.g., knights, cowboys, buildings, etc.), which can be shrunk or enlarged and moved around the screen. Then the student writes about the picture he or she has created.

Mr. H. has been working with the children to write continuous stories by linking together separate scenes to tell a coherent tale. Today they are also learning how to add color to their pictures.

The students get right to work at their stations. The teacher and the aide circulate around the room answering questions and helping the children with their stories. He is quite good at getting students to expand their stories by asking leading questions about the scene displayed on the screen. He also stresses the need to think about how they can link the scenes together into one continuous story. The class knows that when they have finished, the teacher will print two copies of each student's book—one for the student to keep and one for the school library.

In a different computer class at CCC-B (not pullout CCC instruction, but rather a weekly computer lesson for the class), the regular computer teacher was absent on this day. The class was taught by the school's floating aide, who routinely assisted the librarian, the CCC proctor, and the computer teacher when needed.

> Students arrive with sheets of paper in hand, titles saved from their previous week's computer class. During the 30-minute lesson, students spend 22 minutes waiting for the aide to get all of the computer screens to the same prompt. Several students, including Maurice, our WSD child, had held their hands up for 5 or 6 minutes waiting for directions, and when the aide came over to each of them, she simply hit the escape key and returned each child to the main menu. One child, not Maurice, was writing; all 12 others just waited patiently. Then she announced that it was almost time to leave, and that they should all take their sheets with them.

Perhaps in some respects this example was atypical because the regular teacher was absent. While that may be true, what remains is that the instruction provided to that particular child (as well as to his classmates) on that day had no meaningful academic focus.

Seeking Evidence of Learning

Teachers monitor their students' learning in a variety of ways: by frequent checking, by asking whether there are any questions, by having the entire class go through a problem or a passage, by asking individual students to demonstrate solutions and by soliciting help from the entire class on the difficult problems, among other techniques. In some classes, teachers often monitored their students' progress; we observed teachers whose internal clocks seemed to signal exactly when to ask students to discuss difficult problems. We also sat in on classrooms where the teachers' reliance on the teachers' guides meant that the teachers checked for student learning only when so indicated in the text.

In one of the classrooms in a Paideia school, we observed not only the teacher's seeking evidence of learning, but students' internalization of the approach. One of the hallmarks of the Paideia approach is its emphasis on asking questions. Teachers model question-asking behavior for their students during regular seminar meetings. Generally students have been pre-assigned a reading passage, and the seminar discussion provides teachers the opportunity to assess their students' knowledge.

> In a discussion of *Prince Rabbit* by A.A. Milne, at Paideia-A, one of the two teacher co-leaders asks the class a series of comprehension questions; the children answer her questions and refer to specific passages in the text in doing so. As the discussion continues, children read passages aloud to support their interpretations and frequently refer back to the text.

Variety of Activities

We hope that our children's school days are like healthy diets: full of the essential (food) groups yet with some variety. People learn in a variety of ways, and under ideal circumstances, children's learning experiences include a variety of techniques and strategies. This metaphor may be useful in understanding how children learn to read. Some learn from hearing the same stories read over and over, some from learning the alphabet song, some from having watched Sesame Street, some from practicing sounds and blends. Our observers noted that in one Success-for-All site, children were exposed to a variety of activities as part of the overall effort to teach them how to read. In SFA-A, Kim C., an Asian second grader whose English proficiency was extremely limited when we first met him in Fall 1990, encountered a number of different reading-related activities during our fall observation.

> Kim's morning begins with a reading group; children take turns reading aloud and they work together to try to figure out the main idea, and this activity lasts for nearly an hour. The next activity is to work with partners to identify central elements of the story (15 minutes). The class comes back together and works as a group again to share what they have covered during the previous 15 minutes (10 minutes). Children then move back to their regular classrooms, and work on sentence completion; they spend the next 50 minutes working on sentence drills.

This combination of reading activities was designed to provide Kim and his classmates with experience in reading alone, with partners, and with the larger class group. Each time our observers have visited this school, they have observed a similar set of reading-related instructional activities.

Active Participation

When students are engaged in the learning process, their participation is highly visible. We often saw evidence of this; students eagerly raise their hands to answer questions or volunteer hypotheses, and when correct, many students respond with a "Yes!" Their interest in and excitement in learning can sometimes be contagious. Teachers can invite their students' participation in a number of ways. In some second grade classrooms, teachers have periodic "Show and Tell" times when students are asked to share a story or an experience with their classmates. By ensuring all students have a chance to be in charge of an activity or that every student gets some positive whole class attention, teachers convey to all students that their participation is valuable.

One second grade teacher at Extended Year Schoolwide-A has been promoting children's interest in writing by sponsoring an annual Young Authors' Fair. Children wrote and published their own stories and then shared these stories with the entire school. Children from different classes went to visit the fair on a staggered schedule so many other children could see the published books. A

similar idea has been implemented at CCC-A with a Science Fair. Students entered a grade level competition and submitted the result of various experiments, and then other students in the school as well as parents were invited to attend the exhibit.

Relating Learning to Student Experiences

Teachers can make learning more interesting to their students when the relevance of what is under study is apparent. When children can see that there are connections between what they do in school and what they do outside of home, learning can take on far more value than if school learning remains a separate and unattached endeavor. In one class, for example, where the student population was Native American, the school had invited a local artisan to teach students about tribal crafts.

> The class went to the shop room for beadwork taught by an artist from the pueblo. The beadwork artist has brought books with Indian designs that he puts on the table for the students to look at. Students stood or pulled up high stools around tall tables. On the tables were small containers of beads in many colors and silver fasteners. Students strung beads into earrings or bracelets. All of them worked steadily with concentration—talking quietly in Keres to each other.

This example represents one positive strategy teachers can use to integrate home and school cultures.

In our spring visit to Comer-A, our observers arrived to find out that a young child had recently been shot on the school's playground. The teacher used a newspaper clipping as the starting point for a class meeting about guns and issues of gun control.

> Mrs. L. shows a newspaper clipping of a little boy crying on the steps of a church. The headline reads "GUNS." the teacher asks why students think the boy is crying. Kenny (the WSD child) says he thinks the boy is crying because he doesn't have any money. Mrs. L. corrects him by saying that the little boy is at a funeral for someone he loved. The class then begins to discuss the shooting that happened on the corner of the school playground in the middle of the afternoon last week. The children begin to chant, "Get rid of guns."
>
> Mrs. L. explains that getting rid of guns is more than Congress seems able to do. Children suggest that Congress pray that all the shooting stops. Kenny says they should arrest the people who make the guns. Mrs. L. then explains that some guns are okay, for example when hunting, and she reviews with them about guns in their street, what to do if there is a shooting, and about their own personal safety.

The discussion just described incorporated a quite relevant element of some of our WSD children's lives—that of violence. While perhaps an unusual example, it does illustrate that teachers can use both positive and negative aspects of children's daily lives in their teaching. And more effective teachers are able to show students how what they learn at school is connected to what they experience outside of school, and vice versa.

Capitalizing on Teachable Moments

The excerpt about the "guns" headline illustrates one teacher's ability to capitalize on a particular moment to make use of students' previous experience and knowledge and move forward. Over the course of our observations, we have witnessed many natural learning opportunities fall victim to distraction, lack of skill, or the teacher's lack of knowledge. The two following excerpts, both from second grade classrooms at Tutoring-A, describe two teachers' encounters with such teachable moments. One takes advantage of a teachable moment; the other does not.

The lesson below began when the children returned from an afternoon recess. The children entered the room and quickly went to their desks where they read or worked in their journals.

EXCERPT FROM A NUTRITION LESSON: 1

2:30 p.m. Mrs. B. prepares for the next lesson on nutrition and health; she passes out empty and flattened cracker, candy, or cereal boxes—not quite enough for each child, but only a few short. She remarks that some children will have to share. Tami gets a Triscuits box, but barely notices as she is so intent upon her drawing.

2:40 p.m. Mrs. B. writes a number of different types of sugar on the board (dextrose, glucose, lactose, corn syrup, etc.) while children are still doing silent reading/drawing. At 2:45 she calls the class to attention and asks them to identify the four major food groups. (There are posters in the rooms with pictures of things that fit in the four groups, and it seems rather easy for children to identify the food groups as a result.)

2:50 p.m. The assignment is to find the types of sugar listed in the ingredients. Tami looks carefully at her box (of Triscuits), and consults with one of her neighbors about the different sugars. The teacher circulates, making sure all children have found the ingredients panel. She asks the class to switch boxes with classmates after they have written down the sugars. Tami inherits a box of Saltines, and then a box of Cheerios. Children are excited about this activity, and everyone is reading and writing and talking. Mrs. B. asks class which foods had sugar—all but two of the 20-odd boxes had some type of sugar (one cereal, and one cracker). The teacher asks if any children ever read the boxes of things at the grocery store, and no one says "yes." Then she asks whether they will the next time, and the class responds enthusiastically "yes!"

3:00 p.m. She passes out a worksheet about sugar—a dozen boxes are portrayed with the ingredients listed—and students are to play sugar detectives, and find the sugar-loaded items. Children are busy with this task until the bell rings at 3:10. Tami has been involved for the entire sugar episode.

In the next class, students have also returned from recess, and the students are waiting for directions from the teacher. There are posters on the wall in this classroom as well about the four food groups.

EXCERPT FROM A NUTRITION LESSON: 2

2:10 p.m. Mrs. M. asks class to clear off desks for a nutrition lesson. She asks for two helpers to pass out napkins and she passes out doughnuts (apologizing to me and another

observer from a local college that there are only enough for the students and herself). Children happily eat their treats. Mrs. M. asks "How many like doughnuts?" All but two students shout out "Yes!" and those two offer their doughnuts to the observers (refused on both counts). The non-doughnut eaters are suddenly the most popular children around as they try to give pieces away. The teacher asks students to clear their desks as they prepare for their next activity. That's the end of the nutrition lesson.

Certainly these two examples represent two different extremes; each teacher had clearly prepared for the lesson, although in quite different ways. The second grade teachers in this school shared planning of themes and units. Mrs. B. had brought in as many empty boxes as she could collect, while Mrs. M. had brought in special food for her class. Mrs. B. was able to capitalize on her students' attention and participation to help them think about the importance of food labels and ingredients. By contrast, Mrs. M. was not able to use the novelty or the "treat" of the doughnuts to help her students learn more about nutrition.

Encompassing Cultural Diversity

The community and social contexts of schooling are critical to children's school experiences. Our discussion earlier in this chapter about the relevance of instruction to children's lives touches upon a much broader issue—cultural diversity—that we want to explore in depth. Cultural diversity ought to be an integral element in all children's instruction, for at least the following reasons:

- to facilitate learning about the English-speaking majority culture by using one's own native language;
- to help children of different ethnic and racial groups to understand and appreciate one another and to instill racial and ethnic tolerance;
- to provide children with a more complete understanding of their own heritage and thereby enhance their self-esteem and sense of self-worth;
- to demonstrate through example—in staff representation as well as in curricula—that people of varied ethnic and racial backgrounds are all welcome participants in the learning process.

Many types of cultural diversity are represented by the schools and students in the sample. First, a few schools are populated almost entirely by students who speak a language other than English. Then there are schools that are comprised of a mixture of cultures (African-American and White, Native American and Hispanic), and finally some schools are virtually all Black or all White. Based on the WSD observations, these schools deal with cultural diversity somewhat differently, as described below.

Schools Dominated By Another Language

The three schools in the study that fit this category are Hispanic, Asian, and Native American, respectively. Each has faced and dealt with its situation differently. The Hispanic school is a rural school that has a population 98 percent Spanish-speaking. The students speak a language known locally as "Tex-Mex," as is the local border culture in which the school is immersed. All the teachers speak both English and Spanish and most come from the same local culture; in this school, bilingualism is a condition of employment. The school is attentive to its unique language status in three ways: 1) a formal ESL program transitions children who speak no English, 2) instruction is in Spanish for children who need help in developing fluency in their native language, and 3) the school is characterized by ongoing informal shifting back and forth from one language to another in the classrooms all day long. In our observations, as children asked a question in English, they sometimes forgot an English word and changed to Spanish. The teacher generally corrected the word in English but if the exchange got intense, both conversed in Spanish until the issue was clarified.

The Asian school is an urban school with a population that is 75 percent Asian. The dominant Asian groups are Cambodian and Vietnamese but there are other groups as well, including some that represent languages with very few speakers. The remainder of the student population is a mixture of African-American and White as is the entire faculty of the school. The adjustment made by this school to its non-English speaking population consists of 1) an ESOL program and 2) a transitional first grade which allows children to work in readiness activities until they are ready to move into first grade. The major purpose of the transitional first grade is to serve as a full immersion English language program.

The Native American school's population is 100 percent Pueblo, and all students speak the Keres language. Although the children speak to each other in Keres, the teachers use English in speaking to the students and all work is conducted in English. This school attempts to overcome the conscious boundaries maintained by the Pueblo people between themselves and White culture in several ways. One is to incorporate Pueblo traditions into the school day, as illustrated in the excerpt from an art class presented earlier in this chapter.

Schools with Mixed Cultural Identities

To a degree, of course, all American schools are melting pots of mixed cultural identities; the specific schools referred to in this discussion are those in the sample that are mixed Black and Hispanic schools or mixed White and Hispanic schools. In areas of urban poverty, such mixtures are

likely to occur and require teachers to exhibit particular sensitivity. The example below shows a teacher who took time on an observation day to teach a lesson about respect for cultural diversity.

Mrs. T. taught second grade in Extended Year Schoolwide-B, a 100 percent minority school that was rapidly changing from predominantly African-American to predominantly Hispanic. She is Japanese-American, originally from Hawaii, and a 25-year veteran of this school.

> 9:25 a.m. Six couples were practicing the Mexican dance they were going to perform on Friday, May 1 for the *Cinco de Mayo* celebration at the school (12:45 to 2:30 p.m.). The event was to be held in the afternoon so that parents of the children could see their children perform. Before she turned the record on, Mrs. T. said: "Dancing is a cooperative thing. Also, it's like reading. If you don't practice, you don't do it."
>
> In the midst of the rehearsal at the front of the classroom, Marcus, an African-American boy who has been carrying out the steps in a half-hearted fashion, loses track of what he is supposed to do next, makes faces about how silly all this is, and then stops altogether, abandoning his Hispanic partner, Anna.
>
> Mrs. T., who had been standing next to the record player, lifts the needle off the record and orders the entire class (the 12 dancing students and the 6 or 7 students who had been observing) onto the rug to talk to them. No one expected her to stop the music before the end of the dance. The children cluster around her on the carpet. They are very attentive, and she waits until they are seated and quiet to begin talking. She has a stern expression on her face.
>
> 9:40 a.m. Mrs. T.: Parents are coming to the program next week from their work. They are not coming to see someone act the fool (looking at Marcus). The Mexican people take *Cinco de Mayo* very seriously.
>
> Turning to Marcus, she says: Don't humiliate and embarrass Anna's family by fooling around. To Marcus and then turning to the rest of the children seated at her feet, she says: Mexican people take education very seriously. If I act like a fool, then what does that say about the school? They will say: I don't want my children in the school.
>
> Mrs. T. continues: Did you know that 25 years ago when I first came to this school, I had only one Mexican student in my class? Yes. And do you know where he is now? He is in engineering at UCLA!
>
> Several students: Yes! [One girl clenches her fists and raises her arms in a gesture of winning seen in athletics.]
>
> T: What are the colors of Mexico?
>
> S: Red, white and green.
>
> T: Yes, we're wearing the colors of Mexico in our dance. We are honoring their colors.
>
> T: What's important about learning about other people?
>
> S: So we can speak with each other.
>
> T: Good.
>
> Several other students mention why it's important. Mrs. T. then went on to tell two stories. She very briefly reminded students that she was born in Hawaii and her neighbors were Hawaiian, Filipino and Korean. The students nodded when she told them that they all

> got along with each other, although they spoke to each other in pidgin English. Her second story was about her husband, also a teacher in the same school system and a Japanese American. Recently, a student in his junior high school (though not one of his own students) came up to him after school, pulled at the corners of his eyes (making them into slits) and then made sing-song nonsense syllables. She then asked the class if that was okay for the student to do that.
>
> S (in unison): No.
>
> T: Don't make fun of people. That is not right. It embarrasses them and it hurts them. No matter how a person looks, they have feelings.
>
> 10:00 a.m. Mrs. T. then dismisses the students back to their seats.
>
> At lunch that day, I asked Mrs. T. about whether she had planned the 20 minutes after the dance rehearsal. She replied: Oh no, when that happens (that is, making a fool of other people's customs), I nip it in the bud. I do it right away. You can't wait with primary grade students; they will lose the point.

A less fortunate example occurred in another urban school in which a monolingual English-speaking teacher virtually segregated the 14 Hispanic students (many with limited English) from the six African-American English speaking students. The English-speaking children all sat at the front of the room with their desks directly abutting the teacher's desk. The teacher geared her instruction primarily to them, speaking only in English. She directed the Spanish speakers either to work with a part-time (morning only) bilingual aide or to do seatwork. Some children listened to her English directions and attempted to follow along, despite her frequent directions to do otherwise. At one point, the observer noted:

> The teacher asks the aide to work with a group of eight or nine Latino children. No transition between activities—the aide was still translating her last remarks when she interrupted him to make this request. Then the teacher returns her attention to the native English speakers, and by extension, the several Latino children who are not working with the aide; she asks the children to explain how they know tadpoles are living things. When the teacher asks questions, she allows more wait time to English than Latino children—consistently a two- or three-second difference.

Homogeneous Schools: All African-American and All White Schools

Based on the WSD observations, schools that contain virtually all African-American or all White students are similar in that they both have relatively homogeneous ethnic and racial groups in the schools. Yet the attention to cultural diversity differs in such schools.

African-American schools. Observers did see some evidence of an interest in African-American culture in predominantly African-American schools. In one urban school, the students in elementary grades are studying French, the language spoken in many African nations, as a way of

raising consciousness and pride. In another school with an all African-American population, the students learn about the "Afro-American scientist of the week." Our observer was there on a day when the children read about the inventor of the gas mask. The class is attentive as the teacher tells them about the racial prejudice encountered when people found out the inventor was African-American: they canceled their orders for the new product. In general, African-American schools display far more evidence of attention to diversity in school displays and recognition of minority accomplishments.

White schools. The all White schools we visited displayed little evidence of cultural diversity, either in materials used or staff. One school attends to teaching students about cultural difference by teaching German, but otherwise our observers noted little attention to issues of diversity.

In all schools, it seemed reasonable to expect some reflection of current cultural norms. Examples are materials that reflect multiple cultures, show people with handicaps, and that are free of stereotyping. Unfortunately, the typical reliance on standard textbooks for instruction in all subjects means that the extent to which the materials used by children depict desirable racial, cultural, and sexual norms depends on which editions of these books are in use. Although some teachers have tried to make up for this deficiency on their own by preparing their own materials, such examples are rare. In one all African-American school, the observer notes: "Most of the commercially-made instructional materials used are not adequately representative of cultural diversity. Teachers attempt to compensate for this when they purchase or develop their own instructional materials. Furthermore, throughout the school, posters, and other materials on the walls and bulletin boards in the classrooms and halls depict cultural diversity."

This chapter and the one preceding have sought to illuminate the school experience of children in *Special Strategies* schools. Access to instruction and the relationship between instruction and management also serve as factors influencing student performance. In the chapters that follow, we shall explore in greater depth the educational outcomes of students in Special Strategy schools.

Part II

EFFECTS OF SPECIAL STRATEGIES ON STUDENT PERFORMANCE

Chapter Six

Writing Assessment of Second and Fourth Grade Students

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Overview

In the fall and spring of the 1991-92 academic year, a structured writing assessment of second and fourth grade students in the *Special Strategies* schools was conducted to measure the general cognitive achievement of children. The writing assessment serves as a performance-based addition to the standardized achievement tests administered to these students.

The content of the prompts and the administration procedures build upon writing assessments used by the National Assessment of Educational Progress (NAEP), the SRI Study of Academic Instruction, and Swartz (1986). The earlier studies included fourth grade writing assessments, but not second grade writing assessments.

Students wrote on two topics both in the fall and spring. As a result, almost 2,500 stories written by over 600 students were scored. Twenty raters, ten for each grade level, scored the stories on three scales: expressive writing, sentence structure , capitalization and punctuation. In addition, the number of words in each story was tallied.

The major findings of the writing assessment include the following:

- Raters displayed high agreement in their scoring on the three scales. At both grade levels, raters obtained over 93 percent agreement on the expressive scale, 94 percent on the sentence structure scale and 89 percent on the capitalization/punctuation scale.
- Second grade students receiving a special strategy improved their writing performance from fall to spring as measured by the three writing scales. The stories written in the spring were also substantively longer than those written in the fall.
- Fourth grade students receiving a special strategy showed no improvement in their writing performance from fall to spring on any of the writing scales or in terms of story length.
- Second grade students in special strategies that supplement regular instruction performed at the same level as their classmates on the several measures of writing performance, both in the fall and in the spring. Due to the small number of students in our sample who are

receiving supplemental instruction (N=29), generalizations to populations beyond these students should not be made.

- Fourth grade students in special strategies that supplement regular instruction scored below their classmates on their expressive scores in the fall. However, in the spring, on average, these two groups obtained the same expressive scores. On the other measures of performance, sentence structure, capitalization/punctuation and story length the pattern of performance for these students matched that of their classmates. However, because there are only 10 fourth grade students in our sample receiving supplemental instruction, no generalizations to other groups of students can be made.

- Students in schools implementing Chapter 1 schoolwide projects achieved writing performance results similar to those obtained by *Special Strategies* students as a whole.

Design and Administration

Selection of Prompts

Verbal prompts were selected because they were likely to be culturally neutral, within the range of experiences of second and fourth grade children, and general enough to allow a range of expressiveness. Two different narrative prompts were selected to obtain two different, but comparable, writing samples from the same students. Narrative (as opposed to analytic) prompts were used, because second graders were unlikely to have developed analytic writing skills.

The wording of the prompts was adapted from the SRI Study of Academic Instruction. The final wording of the two prompts was:

AFTER SCHOOL
Think about the things that you like to do after school. Write a story about something that you did recently that you really liked.

VERY IMPORTANT PERSON
Think about someone who is very important to you. Write a story about this person and describe what that person is like.

Selection of Classrooms and Students

The classrooms selected were those containing the students whom we were observing through their entire school day. Three students in each school were followed throughout their day. These students, selected in 1990-91, were low achieving on standardized tests and were seen by their teachers as needing additional help to succeed in class. In the 1991-92 school year, most of these students were again found in three different classrooms; some, however, were in the same classroom. The total number of classrooms per school then ranged from two to three. All students in the class were given the prompts.

Fall and Spring Administration

Identical writing prompts were used in the fall and in the spring, and were administered in the same order. Schools were randomly assigned to which prompt was used first, so that no bias would be introduced in the ratings of the two samples. Because visits to the schools usually lasted three or four calendar days, we sought to have the writing assessments conducted on alternate days, rather than on consecutive days. Field staff administered the writing assessments in the mornings.

The fall assessment period ranged from the end of October to the middle of December, while the spring assessment period was the end of April to the middle of June.

Instructions to Students

Field staff administered the writing assessment to each class of students. They told students that they had 20 minutes to write a story, that they should do the best they could in that amount of time, and that they could make corrections or changes on the paper but not copy the story over. Each student was given a copy of the prompt. If the students had any questions about the prompt, they were told to write whatever they would like and that there was no "right" answer to the question. During the 20-minute period, some children raised their hands with questions. Almost without exception, the questions were on how to spell a word. Children were told to spell words the best they could. If children finished before the 20-minute period was up, they were encouraged to do something else quietly for the remaining time so as not to disturb the other children. Some drew pictures, others read quietly.

Scoring of Writing Assessments

The writing samples are scored on three scales: expressive writing, sentence structure, and capitalization/punctuation. The expressive writing scale is adapted from the expressive writing scale used by SRI in its Study of Academic Instruction (Exhibit 6.1). Their six-point scale was converted into a four-point scale, and the overall judgment associated with each number (such as "excellent response," "good response") was deleted. In addition a score of zero was included for those writing samples which could not be rated because they were too short or incomprehensible to the reader.

Exhibit 6.1

Guide for Scoring Writing Samples

I. EXPRESSIVE WRITING

Scores:

4 Clearly and appropriately responds to the prompt; fully develops one main idea with many examples or with several extended/elaborated examples; is clearly and coherently organized; uses specific and rich details.

3 Responds to the prompt; contains adequate development of the main idea; has adequate organization, although may omit an important step or include an irrelevant story; and uses sufficient detail to make responses clear.

2 Responds to the prompt but may be unclear in some sections; develops the response but may use a list of separate responses rather than connected details to support one main idea; is organized but may be poorly focused on spots; may have insufficient detail.

1 Responds to the prompt but may be unclear in many parts; has little development of the main idea; is poorly organized or has many irrelevant sections; has few details.

0 Cannot be rated; insufficient sample of writing.

II. SENTENCE STRUCTURE

Scores:

4 Uses complete sentences and a variety of sentence types and lengths.

3 May have occasional run-on sentences; some variety of sentence types and lengths.

2 Frequently uses run-ons or sentence fragments; most sentences of the same type and length.

1 Mostly run-ons and/or sentence fragments; shows limited awareness of sentence structure.

III. CAPITALIZATION AND PUNCTUATION

Scores:

4 Makes few or no mechanical errors; begins and ends sentences correctly; capitalizes proper nouns and "I"; uses commas and quotation marks correctly.

3 Makes some mechanical errors but they do not interfere with the communication of ideas.

2 Makes several mechanical errors which may hinder communication of ideas.

1 Makes repeated mechanical errors which severely interfere with communication of ideas.

Source: *Special Strategies for Educating Disadvantaged Children*, 1992.

To help understand the meanings of scores at each level of the scale, various examples of writing, with their corresponding expressive scores, are presented below:

Second Grade: After School

Expressive Score = 4.

I like to go outside and ride my bike because it is hot inside. Then when I am tired I go back in the house and rest for ??? 8 minute and then I do my homework. And then I eat my lunch. And go outside back and play chase the fox outside my backyard. Then my mom told me to go in back and go buy tuna fish for dinner. When I come back from the grocery store I go inside the house and I cook the tuna fish with my mother and we ate dinner.

Expressive Score = 3.

After school I like to do my homework and when I get done with my homework I play with my friend Jeoy we ride our bikes together. We go to the store together and many more. Jeoy is my best friend We play footbal We be on the same team we were wining. I made three touchdowns Joey made three touchdowns too. We were very happy we won.

Expressive Score = 2.

After school I like to ride my bike And look at cartoons then play bastsball and take a nap then eat cupcake a milk ham buger and frach fries with salt and peper. And spuernintodo. The End

Expressive Score = 1.

I like to be so bad that some dogs popt chans and run after me

Fourth Grade: Important Person

Expressive Score = 4.

I think my dad is a very important person to me. He is the Asst. Principal at the [Name] Middle School. He is a nice but strict man to his students that see him. He goes to work from 7 a.m. to 5:30 in the morning. On weekends he takes me golfing and we watch football on T.V. My dad seems to be a fun loving person. Even when he has work he tries to find a way to spend some time for me. I give him support and he gives me support. When I try to help him he also tries to help me. I like my dad because he has time for me. That is why he is a V.I.P. to me.

Expressive Score = 3.

My fathe is important to me because my mom isn't with us any more because she left me with my father 5 years ago she would come and get me every weekend and now she Don't come and get me any more. Now I'm worried about my mother because I miss Her. So my dad takes care of me now and I love my dad he gives me $10.00 for allowence that's my Important Person.

Expressive Score = 2.

I have a freind she gose to [Name] School she is a nice person She always help me with thing I dont understand and I help her with things she dont know

Expressive Score = 1.

The person thats important to me is my Psychiatrist.

The two scales related to the mechanics of writing—sentence structure and capitalization/punctuation—were developed by Janet Swartz (1986), who oversaw the design and analysis of the writing assessment.

In addition to scoring the samples on the three scales, the number of words for each story was tallied.

Raters

Twenty raters were selected to score the writing samples. Separate raters were used for each of the grades—10 at second grade and 10 at fourth grade. All raters were teachers with elementary school experience. Most had some experience working with disadvantaged low-SES students and had realistic expectations about the kind of writing that our sample of second and fourth graders could produce.

Rater training and scoring of the samples took place over a two-and-a-half-day period at Abt Associates. The raters were trained to use the three scales (expressive, sentence structure and capitalization/punctuation) for a total of about four hours. Training was conducted separately for each grade level, with 10 raters in each group.

In the initial training period of about one-and-a-half hours, raters read and scored a packet of 10 samples of writing about the first topic, "A Very Important Person." Scores were discussed, particularly if differences among the scores were more than one point on the scale. The purpose of this training was to establish common standards for each point on the scoring scale. This initial stage of training was considered complete when the 10 raters showed consistent agreement on their scores. Scores were defined as in agreement if differences were one point or less.

In addition to the initial training, raters were also trained at several other times during the scoring sessions. After raters had scored samples for about one to one-and-a-half hours, they were "re-anchored" to the three scales by scoring and discussing five samples together. Re-anchoring was conducted to insure that raters had not been so influenced by the particular samples they had read as to have drifted from the common scoring standards established during the initial training.

After raters completed scoring the first topic, the same initial and re-anchoring procedures were used for the second topic, "After School."

Scoring Procedures

A student's writing was included in the analysis only if he or she completed four writing samples, two each in the fall and spring. As a result, 2,448 writing samples from 612 students were scored during the rating session.

In order to obtain reliable scores, each writing sample was read and scored on each scale by three raters. The average of the three scores for each scale was computed and used in the subsequent analysis. The samples were organized into approximately 100 packets by topic and grade, each containing about 25 samples. Each packet was organized to contain samples of varying quality and length.

Raters read between 14 and 17 packets during the course of the rating sessions. The specific set of packets that each rater read was determined in advance, using an unbalanced Latin-square design. The purpose of this step was to minimize the number of stories read by any pair of readers. By using this matrix, no two readers read more than four of the same packets (about 100 stories) on any one topic, representing about 25 percent of all of the stories. Given the fact that each story was read three times, a maximum of 25 percent overlap, with 10 readers at a grade level, is not very high.

Analysis of Writing Assessments

Rater Agreement

To judge rater agreement, the ten raters at each grade level scored one common set of 20 stories on one topic (grade 2–"After School" and grade 4–"Very Important Person"). The stories were selected from students for whom four samples were not available. Raters scored these samples using the same scales that were applied to the larger collection of writing samples, calculating a score measuring expression, sentence structure and capitalization/punctuation. These scores were used in two ways:

- Identify raters that are having difficulty with the scoring scales; and
- Obtain a preliminary measure of the extent to which raters' scores are in agreement.

For each of the scales, one rater's score was compared to each of the other nine raters' scores. A series of difference scores was computed by subtracting one score from the other. Scores were defined as "in agreement" if their difference was either one or zero. If the scores of two raters differed by two or more points, the scores were not in agreement.

These difference scores were computed for the complete set of writing samples, as well as the common packets at each grade level. Overall, agreement among raters was very high for the common packets and the complete sample (Exhibit 6.2).

Raters displayed a very high percentage of agreement for the expressive scores, on both the common packet and the complete sample. Across both grades, the percent agreement was greater than 90 percent. Similarly, on the capitalization/punctuation scale, a rater's scores were in agreement almost 90 percent of the time. Again, the agreement rates are similar for both second and fourth grades.

Exhibit 6.2

Inter-Rater Agreement of Writing Scores on Three Scales[1]

	SECOND GRADE		FOURTH GRADE	
	Common Packet of 20 Stories	**Overall Sample 1248 Stories 312 Students**	**Common Packet of 20 Stories**	**Overall Sample 1200 Stories 300 Students**
	Ten Raters	*Three Raters*	*Ten Raters*	*Three Raters*
	Percent Agreement		Percent Agreement	
Expressive	95.0	94.9	95.6	93.1
Sentence Structure	80.7	94.7	84.7	95.4
Capitals/ Punctuation	94.8	89.2	91.1	92.0

[1]Pairs of rater scores are in agreement if the difference between the two scores is no more than one point.

Exhibit reads: On the second grade packet of 20 stories, raters were in agreement with one another for 95 percent of the comparisons on their expressive scores.

Source: *Special Strategies for Educating Disadvantaged Children, 1992*

Raters also showed very high agreement on their sentence structure scores on the complete sample, about 95 percent at each grade level. On the common packet, the rates of agreement were good, but not as high as on the complete sample: 81 percent for the second grade raters and 85 percent for the fourth grade raters. These somewhat lower rates of agreement are of less importance given the fact that they are based on a set of only 20 stories, versus more than 1,200 for the complete sample.

As a further check of raters' performance, individual rates of agreement were computed on the sample packets of 20 stories for each rater. Individual rater's levels of agreement ranged from 86 percent to 98 percent for expressive scores, and 78 percent to 96 percent on sentence structure.

The range for capitalization/punctuation was wider, 63 percent to 100 percent. On this scale one rater had a fairly low level of agreement relative to other raters. However, the decision was made to keep this rater's scores on the complete sample, rather than re-rate the writing samples on all three scales.

These high levels of rater agreement suggest that, overall, raters applied the four-point scales with a high level of consistency. That is, if one rater scored a story a "four" expressive, then in all likelihood, the other two raters gave it either the same score or a score of "three."

Results of the Writing Assessment

Three types of analysis are presented in this section. The first examines the performance of Chapter 1 students who were recipients of a special strategy in either of the last two academic years. There are 460 such students, 170 in second grade and 290 in fourth grade. The 170 second grade students represent six special strategies in 23 classrooms in nine schools. Similarly, the fourth grade students represent four special strategies in 21 classrooms in eight schools (Exhibit 6.3).

The second analysis examines differences in scores between students who were in special strategies supplementing regular instruction and their classmates during school year 1991-92. At the second grade level, this includes 29 children in adjunct programs representing three special strategies in eleven classrooms within four schools. The performance of these children is compared to the performance of their 145 classmates. At the fourth grade level, our sample contains only one class in which the special strategy supplements regular instruction. The performance of the nine children in that class who receive supplemental instruction is compared to the performance of their 10 classmates.

The third analysis reports the writing performance of students in Chapter 1 schoolwide projects. There are 267 such students, 88 at the second grade level and 179 at the fourth grade level.

For the three analyses described here, writing performance results are presented in several ways:

- distributions of scores on the writing scales,
- mean scores on the writing scales,
- combined mean scores across two topics,
- mean number of words in a writing sample,
- combined mean number of words across two topics, and
- correlations between story length and writing scores.

A preliminary analysis was conducted to examine the extent to which each topic ("After School", "Very Important Person") affected students' writing performance. Both second and fourth grade students, on average, obtained significantly higher expressive scores on their "After School" stories than on their stories about an important person. However, on the spring scores there are no substantive differences in mean expressive scores for either grade (Exhibit 6.4).

Exhibit 6.3

Numbers of Students, Classrooms, Schools and Special Strategies Included in the Writing Assessment

	Second Grade				Fourth Grade			
	Students	Classrooms	Schools	Special Strategies	Students	Classrooms	Schools	Special Strategies
	N	N	N	N	N	N	N	N
Special Strategy Students	170	23	9	6	290	21	8	4
Non-Chapter 1 Students	142	11	4	0	10	1	1	0
Total N	312	23*	9*	6	300	21*	8*	4
Chapter 1 students in Adjunct programs, 1991-92	29	11	4	3	9	1	1	1
Non-Chapter 1 students in classrooms with adjunct programs, 1991-92	145†	11	4	0	10	1	1	0
Total N	174	11*	4*	3	19	1*	1*	1
Schoolwide Project Students	88	7	3	2	179	14	5	3

* The total Ns for the classrooms and schools are **not** the sums of the columns because non-Chapter 1 and Special Strategies students may be in the same classroom (as in the adjunct programs).

† There are 3 more non-Chapter 1 students in adjunct classrooms than there are non-Chapter 1 students in the first part of the exhibit (145 vs. 142). They represent 3 students who were in Chapter 1 in 1990-91, but not in 1991-92.

Exhibit reads: For second grade there are 170 students representing 23 classrooms, nine schools and six special strategies.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 6.4

Effect of Topic on Writing Scores and Number of Words on Writing Sample

	Second Grade (N = 170)		Fourth Grade (N = 290)	
	Fall	Spring	Fall	Spring
Expressive:				
Mean Important Person	1.69	2.15	2.51	2.66
Mean After School	1.85	2.19	2.73	2.66
t-value	-2.32	-0.49	-3.80	-0.12
p-value	.02*	.63	.001**	.91
Sentence Structure:				
Mean Important Person	1.84	2.09	2.34	2.39
Mean After School	1.91	2.08	2.40	2.39
t-value	-1.19	0.13	-1.08	0.17
p-value	.24	.90	.28	.86
Capitals/Punctuation:				
Mean Important Person	2.43	2.53	2.40	2.40
Mean After School	2.68	2.86	2.29	2.27
t-value	-2.48	-3.21	1.63	1.82
p-value	.013*	.001*	.10	.07
Number of Words:				
Mean Important Person	28.6	46.1	66.2	66.6
Mean After School	33.9	45.0	66.3	65.3
t-value	-2.06	.31	-0.3	.44
p-value	.04*	.76	.97	.66

* Significant difference between fall and spring at the $p < .05$ level.
** Significant difference between fall and spring at the $p < .01$ level.
Source: Special Strategies for Educating Disadvantaged Children, 1992.

Sentence structure scores, at either grade level, do not show any significant effect of topic either in the fall or spring. Also, there was no topic effect on the mean number of words students wrote in their stories, in either grade or in fall or spring.

For capitalization and punctuation, there was no topic effect at fourth grade. In contrast, second grade students, on average, scored significantly higher when writing about after school, rather than about an important person. This topic effect held for both fall and spring. One possible explanation for a topic effect on second grade students' capitals and punctuation performance is that for young children the task of writing about what they do after school in many cases took the form of a list of short, one line sentences. Stories written in this form may be easier to punctuate and capitalize correctly than stories written about one important person.

Combined mean scores averaged across the two topics were computed to indicate performance, although there was an effect of topic on some scores. Because part of writing is the ability to write on a variety of subjects, the combined mean is a better measure of a student's writing ability than scores based on only one topic. For this reason, most tests of significance were conducted on combined mean scores rather than scores obtained on either of the topics.

Students in a special strategy. Most second grade students score between 1 and 2.99 on both the expressive and sentence structure scales, particularly in the fall (Exhibit 6.5). Only about five percent of these students score in the three to four range on either of these scales. In contrast, a much higher proportion of second grade students score three or more on the capitals scale, 35 to 40 percent.

As Exhibit 6.1 shows, a story scored as two responds to the prompt but may be unclear in parts. The story may be a list of separate responses rather than a series of ideas supporting one main idea. The story may be poorly focused, or have insufficient detail. A score of three indicates that the story has adequate development of the main idea, good organization and sufficient detail to make it clear.

The distributions of scores obtained by second grade students suggest that their writing scores improved from fall to spring. Only about one-third of the students had a combined score on expressive of two or more in the fall, versus almost two-thirds in the spring. A similar, although more modest improvement occurred on the sentence structure scale; in the fall about half the students had a combined mean score of two or more, while in the spring that proportion increased to 66 percent.

The range of scores for most fourth grade students is between two and four (Exhibit 6.6). On the expressive scale about 86 percent of the students had a combined score of two or more in the fall, with over 90 percent falling in that range in the spring. At the same time, the distributions of scores

Exhibit 6.5

Distributions of Second Grade Writing Scores by Topic and Combined Across Both Topics (N=170)

	Fall			Spring		
	Important Person	After School	Combined Topics	Important Person	After School	Combined Topics
Expressive:						
0 - .99	2.9%	1.8%	4.1%	2.9%	0.0%	1.8%
1 - 1.99	61.2	42.9	64.9	32.4	20.6	34.1
2 - 2.99	28.8	50.0	30.6	45.3	62.9	55.3
3 - 3.99	7.1	4.7	2.4	18.2	15.9	8.2
4	0.0	0.6	0.0	1.2	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sentence Structure:						
0 - .99	2.9	1.8	2.9	2.9	0.0	0.6
1 - 1.99	38.8	31.8	47.6	29.4	24.1	32.4
2 - 2.99	55.9	61.2	47.6	53.5	67.6	60.2
3 - 3.99	2.4	4.7	1.8	12.9	8.2	5.9
4	0.0	0.6	0.0	1.2	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Capitals/Punctuation:						
0 - .99	2.9	1.8	2.4	2.9	0.0	0.6
1 - 1.99	25.9	18.2	20.6	20.6	16.5	20.6
2 - 2.99	34.1	34.1	41.8	35.3	26.5	32.9
3 - 3.99	31.8	35.9	32.9	31.8	43.5	41.8
4	5.3	10.0	2.4	9.4	13.5	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 6.6

Distributions of Fourth Grade Writing Scores by Topic and Combined Across Both Topics (N=290)

	Fall			Spring		
	Important Person	After School	Combined Topics	Important Person	After School	Combined Topics
Expressive:						
0 - .99	0.3%	0.0%	0.3%	0.3%	0.0%	0.3%
1 - 1.99	20.0	5.5	11.7	12.4	6.6	7.6
2 - 2.99	43.1	52.1	56.6	47.6	52.8	60.3
3 - 3.99	33.8	37.9	30.0	34.5	36.6	30.0
4	2.8	4.5	1.4	5.2	4.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sentence Structure:						
0 - .99	0.3	0.0	0.3	0.3	0.0	0.0
1 - 1.99	20.7	15.5	22.4	19.0	14.5	23.4
2 - 2.99	55.2	60.3	59.7	53.4	62.8	56.9
3 - 3.99	22.8	21.0	17.2	25.5	19.7	18.6
4	1.0	3.1	0.3	1.7	3.1	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Capitals/Punctuation:						
0 - .99	0.3	0.0	0.0	0.3	0.0	0.0
1 - 1.99	31.0	32.1	33.1	28.3	33.1	35.2
2 - 2.99	31.4	41.4	42.1	40.0	41.7	40.0
3 - 3.99	32.4	23.4	23.8	26.6	22.4	23.4
4	4.8	3.1	1.0	4.8	2.8	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Special Strategies for Educating Disadvantaged Children, 1992.

are virtually the same in the fall and spring suggesting little improvement in writing performance, as measured by these scales.

Fall and spring combined mean scores were computed on the three writing scales and T-tests were conducted to examine students' differences in performance from fall to spring (Exhibit 6.7). Second grade students significantly improved their performance on each of the three scales. Gains obtained by second grade students on sentence structure and capitalization/punctuation scales are statistically significant ($p<.01$ and $p<.05$ respectively), and represent a modest substantive improvement.

On average, the largest gain obtained by second graders was on the expressive scale. In the fall, these students had a combined mean expressive score of 1.77, while in the spring this same score improved to 2.17. Typically, a mean score of less than two might indicate a paper with only one or two facts and little organization and virtually no details. It is possible that no rater gave either story a score above two, and some raters must have rated the story a one. A mean score of 2.17 represents a statistically significant ($p<.01$), and substantive improvement on the expressive score. To obtain such a score, one of the raters on at least one of the stories would have rated the story a "three," indicating that at least some proportion of raters judged the story to be of fairly high quality. That is, the story may have had more development of one idea, or more interesting details than the typical story written in the fall.

Further evidence of improvement in second graders' writing is in the change in the length of their stories from fall to spring (Exhibit 6.8). For each topic separately and across both topics, on average, there was a substantive and statistically significant increase in the number of words written in their stories. Across both topics, the typical second grade story increased in length by almost 50 percent, from 33 words in the fall to 47 words in the spring.

Fourth grade students, on average, scored 2.62 on the expressive scale, 2.37 on sentence structure and 2.35 on the capitalization/punctuation in the fall. In the spring, these students showed no statistically significant or substantive gains on any of the three scales (Exhibit 6.7). Consistent with this finding, their stories did not change in length at all from fall to spring. In both cases the typical fourth grade story is about 66 words (Exhibit 6.8).

The fourth grade results contrast sharply with those obtained from second grade students. A possible explanation for different results at different grade levels is that it may be much easier for students to improve on the three writing scales at the lower, rather than the higher end of the scale. Second grade students are just learning to write and it is easier to improve from having virtually no skill at writing to developing some rudimentary beginning writing skill. In terms of the expressive

Exhibit 6.7

Combined Mean Writing Scores for Fall and Spring: Students Who Received a Special Strategy in Either Year

	Second Grade (N = 170)		Fourth Grade (N = 290)	
Scores:	Mean	(SD)	Mean	(SD)
Expressive:				
Fall	1.77	(.53)	2.62	(.62)
Spring	2.17**	(.61)	2.66	(.57)
Sentence Structure:				
Fall	1.88	(.47)	2.37	(.58)
Spring	2.08**	(.55)	2.39	(.57)
Capitals/Punctuation:				
Fall	2.56	(.80)	2.35	(.76)
Spring	2.70*	(.83)	2.32	(.75)

* Significant difference between fall and spring at the $p < .05$ level.
** Significant difference between fall and spring at the $p < .01$ level.

Exhibit reads: Second grade special strategy students, on average, obtained a 1.77 combined mean expressive score in the fall. A combined mean represents the scores obtained across both topics.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 6.8

Mean Number of Words on Writing Samples of Special Strategy Students[1]

	Second Grade (N = 170)			Fourth Grade (N = 290)		
	Important Person	After School	Both Topics	Important Person	After School	Both Topics
Fall:						
Mean Number of Words	28.6	33.9•	32.5	66.2	66.3	68.3
Std. Dev.	(19.5)	(27.6)	(22.8)	(36.2)	(38.3)	(34.2)
Spring:						
Mean Number of Words	46.1**	45.0**	47.3**	66.6	65.3	68.2
Std. Dev.	(33.5)	(27.2)	(27.8)	(35.3)	(39.8)	(34.5)

[1] In this exhibit the mean number of words is a geometric mean, rather than the customary average or arithmetic mean. We obtained a geometric mean by transforming the word counts to a logarithmic scale, taking the average in that scale, and transforming it back to the original scale. The result gives a better measure of the typical number of words in a story, because it does not respond unduly to stories that have very high word counts. To obtain a standard deviation corresponding to the geometric mean, we calculated the usual standard deviation of the log-transformed data and multiplied it by the geometric mean. (This follows from a standard statistical technique known as the "delta method" that converts measures of variability to a transformed scale.)

* Fall to Spring significant at $p < .05$
** Fall to Spring significant at $p < .01$
• Important Person vs. After School significant at $p < .05$

Exhibit reads: Second grade special strategy students typically wrote 28-29 words on their fall stories about an important person.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

scale used in the analysis, it may not be that difficult to improve from a score of one to a score of two. But for fourth grade students to improve from mean score of 2.6 to 3 is probably much harder. Students would need to acquire more sophisticated knowledge and techniques to improve to a score of three. Their stories would have to display better development of the main idea, better overall organization and more details.

Since story length is generally viewed as some measure of quality with regard to the writing performance of primary school students, we examined the relationship between the number of words in a story and the scores the story received on the three scales (Exhibit 6.9). Overall, there are statistically significant and moderately strong correlations between story length and writing scores. For second grade students, the strongest correlations occur between expressive scores and word length, generally yielding an r-value of .50 to .60 ($p<.001$). Sentence structure scores show a similar pattern although the correlations are more modest, in the .30 to .40 range. Overall, the capitals/ punctuation scores are not significantly related to word length at this grade level.

For fourth grade students, the correlations for expressive and sentence structure scores are similar to those reported for second grade. However, the one noticeable difference is that for these students there are statistically significant, although modest, correlations between story length and capitalization and punctuation scores. Also the correlation is stronger for the "After School" stories, ($r=.31$, fall and spring), than for the "Very Important Person" stories ($r=.14$ in the fall; $r=.19$ in the spring).

Chapter 1 adjunct students compared with their classmates. Students participating in adjunct programs were compared to their classmates on the writing scales and on their story lengths. The adjunct programs include CCC, Reading Recovery, Extended Time and tutoring. Overall, there is little difference in the performance of adjunct students and their classmates (Exhibit 6.10). Second graders show no significant differences on any of the three writing scales. However, their fall to spring gains are consistent with *Special Strategies* students as a whole, showing about the same levels of improvement on each of the scales.

At the fourth grade level, measured in the fall, the adjunct students, on average, scored significantly below their classmates on the expressive scale, 2.22 versus 2.60. However, by the spring the scores for both of these groups of students were the same, 2.48.

It is important to note that the fourth grade results represent only one classroom with 19 students, 9 being adjunct students. Thus, generalizations at this grade level about the performance of adjunct students relative their classmates would be highly suspect and should not be attempted. Note that only 29 adjunct students are in the analysis, so generalizations are tentative at best.

Exhibit 6.9

Correlations Between Number of Words on Writing Samples and Writing Scores[1]

	Second Grade (N=170)				Fourth Grade (N=290)			
	Important Person		After School		Important Person		After School	
	R	p-value	R	p-value	R	p-value	R	p-value
Fall:								
Expressive	.54	.001	.64	.001	.52	.001	.64	.001
Sentence Structure	.41	.001	.39	.001	.32	.001	.50	.001
Capitals/Punctuation	.09	n.s.	.07	n.s.	.14	.01	.31	.001
Spring:								
Expressive	.56	.001	.52	.001	.53	.001	.58	.001
Sentence Structure	.41	.001	.30	.001	.33	.001	.49	.001
Capitals/Punctuation	.20	.01	-.01	n.s.	.19	.001	.31	.001

[1] In this exhibit the mean number of words is a geometric mean, rather than the customary average or arithmetic mean. See Exhibit 6.8, Footnote 1.

Exhibit reads: The correlation between fall expressive scores on the stories about an important person and the lengths of those stories is .54. This correlation is statistically significant at the $p < .001$ level. The r-value of .54 means that about 25 percent of the variation in expressive scores can be attributed to the length of the story.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 6.10

Mean Fall and Spring Scores for Chapter 1 Adjunct Children vs. Their Non-Chapter 1 Classmates[1]

	Second Grade				Fourth Grade			
	Non-Chapter 1 Students (N = 145)		Adjunct Students (N = 29)		Non-Chapter 1 Students (N = 10)		Adjunct Students (N = 9)	
Scores	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Expressive:								
Fall	1.98	(.71)	1.80	(.48)	2.60•	(.47)	2.22	(.22)
Spring	2.28**	(.72)	2.24**	(.54)	2.48	(.71)	2.48*	(.40)
Sentence Structure:								
Fall	1.99	(.61)	1.83	(.42)	2.50	(.42)	2.28	(.49)
Spring	2.20**	(.63)	2.07**	(.34)	2.48	(.75)	2.50	(.36)
Capitals/Punctuation:								
Fall	2.46	(.81)	2.28	(.72)	2.73	(.73)	2.30	(.66)
Spring	2.62*	(.85)	2.56*	(.64)	2.58	(.63)	2.65	(.48)

[1] Adjunct students are in CCC, tutoring, Reading Recovery and extended time special strategies.

* Fall to spring significant at $p < .05$
** Fall to spring significant at $p < .01$
• Non-Chapter 1 vs. Chapter 1 significant at $p < .05$

Exhibit reads: Second grade, non-Chapter 1 students in classes with adjunct students, on average, obtained a combined mean expressive score of 1.98 in the fall. A combined mean represents the scores obtained across both topics.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Students in Schoolwide Projects. Students in schools implementing schoolwide projects show similar patterns of results obtained by *Special Strategies* students as a whole. On average, second grade students in schoolwide projects significantly improved their scores on all three writing scales from fall to spring (Exhibit 6.11). In addition, their story lengths substantively increased from an average of 33 words in the fall to about 50 words in the spring (Exhibit 6.12).

Fourth grade students in schoolwide project schools showed no meaningful gains in the three writing scores from fall to spring. Their expressive and sentence scores, on average, were about 2.5, virtually the same as the average of 2.6 for *Special Strategies* students overall. Similarly, these students, on average, did not show an increase in the length of their stories from fall to spring.

Additional Analyses

CTBS Scores and Writing Scores

An analysis of the relationship between CTBS reading scores and the writing scores obtained in the spring of 1992 has been conducted. The purpose of this analysis was to determine the extent of agreement between some standardized measure of student performance, the CTBS, and some non-standard measure, the writing scores. However, it should be noted that our two sets of scores measure the achievement of different, although related skills, reading and writing. (A full presentation of three-year CTBS Test Data will be presented in the *Third Year Report.*)

Exhibit 6.13 presents the correlations among two CTBS scores, reading comprehension and overall reading, and the three writing scores. Both CTBS scores are strongly related to each of the three writing scales, with correlations generally in the .50 to .60 range. These high correlations indicate there is a strong relationship between reading and writing performance in our sample. This finding makes sense because, in general, students who perform well in reading also do well in writing. Often, correlations between several measures of performance may be high because performance in the corresponding skill areas may be related to overall general academic ability of the student.

The high correlations between the CTBS scores and the writing scores also provide additional support for the validity of our writing scores as generalized measures of achievement.

Teacher Judgments and Writing Scores

On the *Prospects Student Profile Survey*, teachers were asked to assess how well students can write a well-developed, coherent paragraph. To examine the relationship between these teacher judgments and student performance on the writing assessment, a one-way analysis of variance was

Exhibit 6.11

Combined Mean Writing Scores for Fall and Spring: Students in Schoolwide Projects Only

Scores:	Second Grade (N = 89) Mean	(SD)	Fourth Grade (N = 179) Mean	(SD)
Expressive:				
Fall	1.79	(.58)	2.50	(.59)
Spring	2.25**	(.63)	2.56	(.54)
Sentence Structure:				
Fall	1.91	(.47)	2.23	(.53)
Spring	2.11**	(.62)	2.29	(.54)
Capitals/Punctuation:				
Fall	2.62	(.79)	2.16	(.71)
Spring	2.76	(.91)	2.16	(.75)

** Significant difference between fall and spring at the $p < .01$ level.

Exhibit reads: Second grade students in schoolwide project schools, on average, obtained a 1.79 combined mean expressive score in the fall. A combined mean represents the scores obtained across both topics.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 6.12

Mean Number of Words on Writing Samples of Students[1] In Schoolwide Project Schools

	Second Grade (N = 89)			Fourth Grade (N = 179)		
	Important Person	After School	Both Topics	Important Person	After School	Both Topics
Fall:						
Mean Number of Words	27.5	36.9●	31.8	61.1	63.3	62.2
Std. Dev.	(19.0)	(30.6)	(22.6)	(33.9)	(38.2)	(32.8)
Spring:						
Mean Number of Words	55.1**	54.1**	54.6**	66.1	66.1	66.1
Std. Dev.	(34.4)	(30.7)	(29.7)	(34.5)	(43.5)	(35.0)

[1] In this exhibit the mean number of words is a geometric mean, rather than the average or arithmetic mean. See Exhibit 6.9 , Footnote 1.

* Fall to spring significant at $p < .05$
** Fall to spring significant at $p < .01$
● Important Person vs. After School significant at $p < .01$

Exhibit reads: Second grade students in schoolwide project schools typically wrote 27-28 words on their fall stories about an important person.

Source: Special Strategies for Educating Disadvantaged Children, 1992.

Exhibit 6.13

Correlations Between Writing Scores and CTBS Reading Scores

Writing Scores (1992)	CTBS Spring 1992 Scores							
	Second Grade (N = 166)				Fourth Grade (N = 166)			
	Reading Comprehension		Overall Reading		Reading Comprehension		Overall Reading	
	R	p-value	R	p-value	R	p-value	R	p-value
Expressive Writing	.58	.001	.61	.001	.54	.001	.55	.001
Sentence Structure	.59	.001	.62	.001	.52	.001	.52	.001
Capitals/Punctuation	.51	.001	.53	.001	.49	.001	.49	.001

Source: Writing scores are from Special Strategies for Educating Disadvantaged Children, 1992. CTBS score were obtained from Prospects, 1992.

conducted. As shown in Exhibit 6.14, there is a significant relationship between teachers' judgments of student writing ability and their performance on the writing assessment, as measured by their mean expressive scores. This pattern was true for both second and fourth grades, although the relationship is stronger for the second grade students. On average, students who scored higher on the expressive score were more likely to be judged by the teacher as competent to write a well-developed paragraph. For example, second grade students who were judged as very likely to be able to write a well-developed paragraph, on average, scored 2.7 on the expressive scale, while students judged unable to write a paragraph obtained an average score of only 1.6.

Analyses of teacher judgments of the writing ability of language minority or limited-English proficient students were not conducted because the number of such students in our sample was too small.

Exhibit 6.14

Relationship Between Expressive Writing Scores and Teacher Judgment About Students' Writing Skills

Teacher judgment: Student can write a coherent paragraph	Mean Expressive Scores: Spring 1992			
	Second Grade (N = 189)		Fourth Grade (N = 152)	
	Mean[b]	(SD)	Mean	(SD)
Very Much	2.71	(.63)	2.83	(.50)
Somewhat	2.12	(.51)	2.58	(.48)
Not at all	1.63	(.43)	2.02	(.49)
Overall Statistics[a]	F = 52.8	p < .0001	F = 20.6	p < .0001

[a] The F statistic is a result of a one-way analysis performed at each grade level.

[b] A Scheffe's multiple comparison procedure was conducted to test mean expressive score differences among different levels of teacher judgment. At both grade levels, each mean is significantly different from the other means at the p = .05 level.

Source: Expressive writing scores are from Special Strategies for Educating Disadvantaged Children, 1992. Teacher judgments on writing are from the Student Profile, Prospects, 1992.

Chapter Seven

Alternative Assessments In Special Strategies High Schools

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One task of *Special Strategies* is to assess the learning outcomes of students in *Special Strategies* sites using alternative assessments. The major criticisms of standardized tests, as typically used in the selection of Chapter 1 students and in the evaluation of programs, are that they provide a misleading picture of student accomplishments, narrow the curriculum and instructional practice, and focus on lower-level skills.

A sensitivity to these criticisms led to a search for "authentic" measures that might be used in addition to standardized tests to measure students' achievement in *Special Strategies* sites. Although publicity and discussion of "authentic" tests have been considerable, these measures are still under development and few are available commercially.

This chapter describes the methods and results of administering two alternative assessments to *Special Strategies* students in the ninth grade cohort. As an alternative measure to the CTBS standardized tests, *Special Strategies* administered a writing assessment and a performance-based literacy test based on the National Assessment of Educational Progress Young Adult Literacy Assessment. The administration sequence in the fall was: (1) writing sample—15 minutes, (2) quantitative subtest—40 minutes, (3) writing sample—15 minutes. In the spring, the students took both subtests of the literacy assessment (40 minutes each).

Each assessment is described separately and focuses on the following:

- methods of training and scoring results,
- results of *Special Strategies* students on the alternative assessments, and
- the relationship between alternative measures and standardized achievement test scores.

Writing Assessment

In Fall 1992, tenth graders in five *Special Strategies* sites were given two prompts used in 1988 by the National Assessment of Educational Progress (NAEP). Students had 15 minutes to complete each task. The prompts are listed below. The examination sheets are in the Appendix.

"Topic A"

Think about a favorite story that you have read or heard in school. Write about the story, identifying it and telling why you like it and what it means to you.

"Topic B"

As a way of finding out more about how people watch television, the students in your English class are undertaking a study of their own television habits.

In a brief report for your English class, describe your own television viewing habits. Describe the types of programs (comedies, soap operas, sports, etc.) you watch most, tell why you select these kinds of programs, and estimate the amount of time you spend watching them.

Give your class a clear idea about the place television has in your life.

Primary Trait Scoring Method

Papers were scored with the primary trait method used by the NAEP. Primary trait scoring does not evaluate the overall writing competence of a piece, nor does it consider the syntactic fluency or grammatical and mechanical control reflected by an essay. This type of scoring asks readers to determine whether a piece of writing has certain characteristics or primary traits that are crucial to success with a given rhetorical task (Cooper & Odell, 1977).

The primary trait for Topic A (the story topic) was, according to the guide, "substantiation of evaluation through analysis." Hence, the four main scoring levels reflected students' varying abilities to evaluate why they liked a particular story by including both a summary of the story and one or more elaborated reasons for their choices.

The primary trait for Topic B (the television topic) was, according to the guide, "explanation through analysis." Thus, the four main scoring levels reflected students' abilities to explain the types of television programs they enjoyed, to analyze why they chose to watch those particular shows, and to estimate the time they devoted to television.

The guides for each topic (see Appendix) required readers to determine how well students fulfilled the analytic requirements of each prompt and rather than how well students wrote their responses. Because the guide is the final authority in primary trait scoring—unlike holistic scoring in which the consensus of readers is a strong determinant—all the scorers had to become thoroughly familiar with each guide and understand how to apply the guide to each individual situation as reflected through the papers.

Scoring of the papers was conducted by the Office of Instructional Resources Writing Center at the University of Florida. During the scoring several steps were taken in preparing the papers for scoring. The essays were first separated by topic, with a code assigned to each paper. A corresponding number was assigned to each answer sheet; the answer sheets, which were designed to prevent the first reader's score from showing through the essay, were color coded to match the essays. Teacher codes were assigned, and the names of students and teachers were then masked.

Sample Selection

To prepare for the selection of samples, the chief reader first studied the guide and examined the scored samples used by the NAEP; he or she then scored the 80+ training papers for each topic sent by NAEP. From those samples, the chief reader selected 40 samples that would cover all score levels. These NAEP-scored samples and training papers were used to anchor the scoring of the actual papers as closely as possible to the criteria specified by the guide.

A similar procedure was followed in the table leaders' meeting held two days before the scoring to select the actual samples. The chief reader and table leaders first reviewed the guide for each topic and studied the original samples scored by NAEP. Then each table leader independently scored the 40 NAEP training papers distributed in four folders of 10 papers each. The chief reader and table leaders subsequently discussed the scores assigned by NAEP. Through this procedure they confirmed that they were correctly interpreting the score level of the guide. These samples became known as the anchor samples.

Each of the four participants then independently scored four packets of 10 papers written by current students involved in the project. After the four sets were completed, the table leaders and chief reader compared scores and discussed the accurate score for those papers on which they had disagreed. These new samples were then reproduced for training during the actual scoring sessions.

Background of the Scorers

The 18 scorers—3 table leaders and 15 readers combined—were highly experienced both in teaching and in formally assessing writing. Ten were from two universities, two from community colleges, and four from three high schools. They averaged 15 years of teaching English and/or composition at the secondary or college level; teaching experience ranged from 5 to 40 years. Although only one scorer had experience with primary trait scoring, all were experienced at holistically scoring essays in formal contexts, with an average of 7.5 years of experience. At least nine scorers in the group had previously served as table leaders or associate chief readers in the large-scale assessment of state-mandated essays; one table leader was the chief reader for holistic scoring for the state of Florida. Five

had previous experience in analytically scoring essays in formal contexts. The four clerical assistants were also highly experienced in handling the logistics of scoring, a factor that facilitated a smooth scoring procedure.

The chief reader, who was the director of the Reading and Writing Center at the University of Florida, had served as chief reader or associate chief reader for the scoring of essays written for the Florida Teacher Certification Examination and for the College Level Academic Skills Tests. She had written test items and topics for both state and national exams, and served on the advisory panel for the College Board–ETS Diagnostic Testing Project.

Scoring Procedures

The scoring sessions for papers written on Topics A and B were held on consecutive days. The chief reader briefly discussed the theory involved in primary trait scoring and then followed the same training procedures as those used in sample selection. That is, the readers first discussed the topic and the guide for the topic; then they read the scored samples originally used by NAEP to see how the guide was applied to papers. Next, they independently scored the 40 anchor NAEP samples in four separate packets of 10 papers each. Following the scoring of each anchor packet, readers compared the scores assigned by NAEP to their own scores and to the guide descriptions.

Then readers scored the samples of current papers in four packets of 10 papers each. While table leaders recorded their readers' scores on each sample, readers discussed with the table leaders and the chief reader any problems they experienced in applying the guide to particular papers.

Once readers were comfortable with the guide, they began scoring actual papers. The readers were given folders containing 13 papers each. They recorded their readers' codes and the score on the answer sheet attached to each essay.

Monitoring Procedures

As readers scored the papers, they freely consulted with their table leaders over questionable papers. In addition, table leaders picked up scored papers from the reader packets, independently scored the essays themselves, and compared the two scores to ensure the scores were identical. As an additional monitoring procedure, a check reading occurred during each scoring. For the check reading, all three table leaders submitted a set of papers they and their readers had scored independently so the chief reader could also score the essays and then determine whether everyone was correctly aligned with the scoring guide.

Second Readings

As each packet was scored, clerks collected the papers and covered the first score on each essay before distributing the papers among several other folders for a second, independent reading. This spiraling procedure ensured that one reader's scores would not be paired against another reader's scores for an entire packet. Once the second readings were completed, the clerks removed the cover which revealed the first score. In keeping with current NAEP procedures, discrepant scores—that is, any non-identical scores—were not refereed. Rather, the first reader's score was recorded as the "correct" one, and the second reader's score, if not identical to the first score, became factored into the reader reliability rate.

The same scoring procedure was used for the scoring of essays written on Topic B.

Results

Topic A

The mean score based on 390 essays for Topic A papers on a favorite story was 2.34, indicating minimal analysis. (Essays given special scores of 9, 8, or 0 were not factored in and will be discussed later.) The frequency of scores at each level for the 428 Topic A papers is shown in Exhibit 7.1.

Exhibit 7.1

Topic A Essay Scores									
Not Rated (0 or 9)		Unsatisfactory (1)		Minimal (2)		Adequate (3)		Elaborated (4)	
#	%	#	%	#	%	#	%	#	%
38	8.8	9	2.1	261	60.9	100	23.4	20	4.7

Topic B

The mean score based on 407 papers for Topic B on television viewing habits was 2.17, indicating minimal analysis. The frequency of scores for Topic B papers is shown in Exhibit 7.2.

Exhibit 7.2

Topic B Essay Scores									
Not Rated (0 or 9)		Unsatisfactory (1)		Minimal (2)		Adequate (3)		Elaborated (4)	
#	%	#	%	#	%	#	%	#	%
21	4.9	58	13.6	220	51.4	129	30.1	-0-	-0-

As shown in Exhibit 7.3, the mean essay scores did not vary a great deal across *Special Strategies* sites. On Topic A, CES–D did slightly better than the others. For the most part, the average indicated that students wrote with minimal analysis.

Exhibit 7.3

Average Essay Scores by School Site

	CES–A (Urban)	CES–B (Urban)	CES–C (Urban)	CES–D (Rural)	CES–E (Rural)
Topic A					
Mean	2.19	2.23	2.21	2.41	2.36
Std Deviation	.76	.49	.94	.58	.69
Valid N	106	69	48	69	90
Topic B					
Mean	1.98	2.14	1.98	2.19	2.25
Std Deviation	.85	.77	.75	.67	.63
Valid N	110	73	52	69	96

Special Scores

Students in all *Special Strategies* test sites were given oral instructions by examiners to think about a favorite story they had heard or read in school and then write about the story. However, the written prompt they received provided conflicting directions, and read, "In this section, you will be asked to write a story." The word "about" was erroneously omitted from the printed prompt. This direction, which suggested to students that a creative task would be required, conflicted with the oral directions and the remainder of the prompt that implicitly asked them to summarize and analyze: "Think about a favorite story that you have heard or read in school. Write *about* the story."

Twenty-six students did attempt to write creative stories, which could not be rated according to the analysis required by the primary trait guide. These papers received scores of 9, which indicated they were "off task." Other students appeared to consider the dual requirements of the prompt by simply retelling a popular story, such as "The Three Little Pigs." Because these students summarized without any explanation or analysis, they generally received a score of 2 to signify "minimal analysis."

Altogether 59 papers—38 on Topic A and 21 on Topic B—were not rated and received special scores. These scores were not included in the mean score or the alpha coefficient obtained for reader agreement.

On both topics combined, a total of 30 students received scores of 9, which signified "illegible, totally off task, or I don't know." Twenty-six students received this score for Topic A papers; rather than performing the analytic task required, they appeared to read only the first direction and then attempted a creative task by writing a story. Four students received this score for Topic B.

Three students received scores of 8, which applied only to Topic B and signified "Unable to do so: does not watch television."

A total of 23 students received scores of 0, which signified "no response." This score—as opposed to the three additional blank essays given no score at all—signified that students wrote only their names on the answer sheets and did not try to write an essay at all. Ten students received scores of zero on Topic A and 13 students received scores of zero on Topic B.

Reader Agreement

The alpha coefficient used to estimate the consistency of scoring by the raters on Topic A was .76. There was 79 percent identical reader agreement between two raters on Topic A. That is, 308 Topic A essays were given identical scores. On another 75 essays (or 19 percent of the 390 Topic A essays receiving scores of 1-4), raters agreed within one point of each other. The NAEP considers an acceptable range of identical agreement to be from 70 to 90 percent.

The alpha coefficient for Topic B was .83. There was 76 percent identical agreement between two raters. That is, 308 Topic B essays were given identical scores. This rate again falls within the range that NAEP considers acceptable. On another 95 essays (or 23 percent of the 407 Topic B essays receiving scores of 1-4), two raters agreed within one point of each other.

Discussion

The performance of *Special Strategies* students as compared to the performance of eighth and twelfth grade students in the NAEP 1988 report *Learning to Write in Our Nation's Schools: Instruction and Achievement in 1988 at Grades 4, 8, and 12* (p. 66) is shown in Exhibit 7.4. The percentages from *Special Strategies* are based on the 428 papers on each topic and include a "not rated" category—that is, papers receiving scores of 0, 8, or 9.

Exhibit 7.4

Special Strategies and NAEP Student Performance Compared

Task	Percent Not Rated	Percent Unsatis-factory	Percent Minimal	Percent Adequate	Percent Elabo-rated	Percent Minimal or Better	Percent Adequate or Better
NAEP Analysis from Personal Experience Favorite Story Grade 8	6.3	9.5	59.2	23.5	1.5	84.1	25.0
Grade 12	8.5	11.5	44.9	29.4	5.8	80.0	35.1
Special Strategies Grade 10	8.8	2.1	60.9	23.4	4.7	89.0	28.1
NAEP TV Viewing Habits Grade 8	4.2	22.1	42.2	30.8	0.6	73.6	31.5
Grade 12	5.2	15.9	43.1	32.8	3.0	78.9	35.8
Special Strategies Grade 10	4.9	13.6	51.4	30.1	0.0	81.5	30.1

On both topics the majority of tenth grade students in *Special Strategies* received a "minimal" rating. The rating of two was often given for Topic A papers when students summarized a story but gave no reasons for why they liked it. The rating of two was often given for Topic B papers when students failed to give one or more of the three elements required by the prompt—i.e., types of programs viewed, time spent viewing the programs, and reasons why they viewed the programs they did. Sample papers on each topic are included in the Appendix.

However, caution must be used in making comparisons with the NAEP sample. Although efforts were made to have the scoring of the papers in *Special Strategies* parallel as much as possible the scoring of the papers from NAEP, the two scorings were distinct. Not only did the writing and the scoring occur several years apart, but primary trait scoring was also new for readers of papers from *Special Strategies* sites. Local decisions had to be made about interpreting the guides. Mullis (1980) notes that results must be interpreted very carefully:

> If the purpose of a writing evaluation is replication of NAEP procedures in order to make precise comparisons with National Assessment results or to use PTS to monitor changes in achievement, caution is necessary. Even though information about the PTS ratings assigned by different groups of readers at different points in time is limited, National Assessment has found from experience that even very subtle differences in interpretation of specific scoring guide categories make precise comparisons impossible (p.23).

Given the differences in the students and scorers of the two projects, comparisons should be made only in the broadest terms.

Performance-based Literacy Tests

We selected a commercial version of the *NAEP Young Adult Literacy Assessment* (1986) as an option for assessing the performance of students in reading and mathematics in the secondary grades. The NAEP study on young adults defines literacy as "using printed and written information to function in society to achieve one's goals, and to develop one's knowledge and potential" (Kirsch & Jungeblut, 1986). Implicit in this definition is a rejection of an arbitrary standard of literacy such as completion of five years of high school, or scoring at the eighth-grade level on a test of reading achievement. This definition also implies that literacy requires complex information processing skills that go beyond decoding and comprehending textual materials.

In household interviews, NAEP explored a variety of tasks that stimulated the diversity of literacy activities people encounter at work, at home, at school, and in their communities. While some items required a multiple-choice format for responding, many others were open-ended and required a respondent to locate and analyze information and derive a response. The study characterized the literacy skills of America's young adults in terms of three scales representing distinct aspects of literacy. Prose literacy reflects skills and strategies needed to understand and use information from texts that are frequently found in the home, school or community. Document literacy includes skills and strategies required to locate and use information contained in nontextual materials, including tables, graphs, charts, indexes, forms, and schedules. Quantitative literacy includes knowledge and skills needed to apply the arithmetic operations of addition, subtraction, multiplication, and division (either singly or sequentially) in combination with printed materials, as in balancing a checkbook or completing an order form.

Although the content of some of the tasks are relevant to young adults (ages 21 to 25), the information processing strategies required of the tasks are applicable to younger age groups (Winfield, 1991). The correlations among the three subtests suggest they measure three distinct dimensions as shown in Exhibit 7.5.

Exhibit 7.5

Correlations Among Three Subtests*

	PROSE	DOCUMENT
DOCUMENT	.55	–
QUANTITATIVE	.49	.56

* From Kirsch, Jungeblut & Campbell, 1991.

Students at each of the *Special Strategies* sites were given the quantitative subtest in the fall of 1991, and the prose and document subtests in the spring of 1992. Although the publisher recommends that the test be administered in small groups (no larger than 20), because of high school schedules, classes, and efforts to reduce the time burden to schools, the tests were typically administered in groups of 40 or more. All tests were administered by research staff trained in test administration. A standardized script that accompanied the testing manual was used and all tests were timed in accordance with the testing manual procedures.

Training of Scorers

A two-day session was held to train scorers to score the literacy tasks. The trainers included a senior researcher with extensive experience with the NAEP young adult literacy assessment, and a junior level researcher who supervised the scoring. Scorers were graduate-level or advanced students from surrounding universities and colleges. The training identified three critical areas for scoring: 1) the structure of the stimulus material being used (graph, map, expository, newspaper); 2) the content or context from which the material was derived (work, home); and 3) the nature of the task the student was asked to perform with the material, (i.e., the mental processes called upon to complete the task successfully). Correct and incorrect responses were provided by the test publisher in addition to general guidelines for scoring which reflected the variable nature of the tasks—whether responses were written on the answer line, underlined, circled or constructed. The first part of the training session focused on the general guidelines. Scorers had to know these in order to be consistent as they applied the scoring guides to responses across similar item types, such as items that require filling out forms, or underlying information.

Individual scorers were then required to solve each of the tasks in each of the three subtest booklets. After each task, the trainer tallied the rate of agreement among the scorers, and elaborated and discussed the correct responses. Incorrect responses were analyzed with the trainer leading a group discussion of the rationale. At the end of the two day training, the consistency among scorers was 100%.

Scores

The raw score from each section of each form was obtained by scoring the questions on a right/wrong basis using the scoring guides. Raw scores were converted to proficiency scores. A proficiency score provides an estimate of each student's demonstrated skill within each of the literacy domains. Scores on these tests provide an indication of the range of tasks that an individual can be expected to perform with a high level of consistency, as well as the kind of tasks that are likely to be highly challenging to a particular person. Some students received perfect scores on the Document test, but not on the other two tests. In a significant number of test booklets, students had not answered any of the questions. Other students attempted to answer the questions, but did not correctly answer any questions. These two situations account for the students who received a minimum score on a given test. The scales for the test of Applied Literacy Skills were linked to the original Young Adult Literacy Survey (Kirsch, Jungeblut & Campbell, 1991).

Results

The results from each of the schools is shown in Exhibit 7.6 and include actual numbers of students with valid scores, means, and standard deviations. There was a range in the number of participants from the various schools and within schools completing the three tests. At some sites, differences in total number of students taking the test are due to absenteeism on the day of testing. For the most part, test administrators reported the students were cooperative and seemed to have attempted to perform at their optimal level. The average performance across sites on the prose and quantitative test varied considerably across the five sites; i.e., by nearly .7 standard deviation. However, on the document subtests, students across sites generally performed about the same.

On the Prose test, the highest average for a school was CES–C with a mean score of 301.11 and scores which ranged from 240 to 390. On the Quantitative test, the highest average for a school was CES–E with a mean score of 294.95 and scores which ranged from 210 to 370. On the Document test, the highest average for a school was also CES–E with a score of 293.60 and scores which ranged from 160 to 370. CES–E and CES–C consistently received the highest and second highest average scores on all tests. CES–C students displayed the greatest range (*i.e.*, 240-390, 210-390, and 160-370 for Prose, Quantitative, and Document, respectively). Correspondingly, CES–A received the lowest average in Quantitative (264.40) and Document (274.29), while receiving an average in the middle of the range in Prose (282.22).

Exhibit 7.6

ETS Applied Literacy Subtest Scores by Special Strategies Site

SCHOOLS	CES–A (Urban)	CES–B (Urban)	CES–C (Urban)	CES–D (Rural)	CES–E (Rural)
Prose					
Mean	282.22	271.97	301.11	275.63	292.73
Std Deviation	39.80	56.82	36.09	37.83	40.16
Valid N	72	66	27	64	88
Quantitative					
Mean	264.57	276.22	293.40	290.25	294.95
Std Deviation	49.14	.46.00	45.36	39.06	56.35
Valid N	116	74	50	79	105
Document					
Mean	274.29	283.91	290.95	289.07	293.60
Std Deviation	49.14	46.00	45.36	39.06	56.35
Valid N	63	64	42	54	89

In Exhibit 7.7 a comparison is made between *Special Strategies* students and young adults in the NAEP young adult literacy sample who have some high school education (grades 9 through 12), and the proficiency scores of high school graduates. On average, the students in *Special Strategies* perform well above the young adult non-high school graduates, and they perform nearly as well as the NAEP high school graduates. However, caution must be used in interpreting these results, since the NAEP sample was an out-of-school population aged 21 to 25.

Content Analysis

A number of questions appear to have been beyond the grasp of students at this level. Most of these items had to do with lack of exposure to adult-like tasks: e.g., using a tax table, investments, etc. Other questions, for example, regarding the favorite television program of women, and the number of calories in meals from fast food restaurants, were answered correctly by nearly all students. The following discussion presents an analysis of selected items which caused considerable difficulty for students.

Prose. Question 2-4 required the student to underline the sentence in a text which indicated how the subject got started in her profession: "Underline the sentence that explains how Lillian Gilbreth got into the time management field." Only thirty-three percent of the students answered correctly.

Exhibit 7.7

Special Strategies and ETS Applied Literacy Subtest, Young Adults

	Special Strategies Tenth Grade Students	Young Adults with Some High School*	Young Adult High School Graduates*
Prose			
Mean	283.28	253.9	286.5
Std Deviation	44.13		
Valid N	317		
Quantitative			
Mean	282.31	257.5	292.2
Std Deviation	32.66		
Valid N	424		
Document			
Mean	286.57	255.5	287.4
Std Deviation	48.89		
Valid N	312		

* From *Profiles: NAEP Young Adult Literacy Survey*

Question 2-8 had to do with long-term investments and why the writer preferred a certain fund: "Identify and list two reasons why the columnist likes the investment fund, the MetLife-State Street Capital Appreciation Fund (MSSCX)." It is likely that the students had a difficult time understanding the concept and were unable to correctly respond to the question. This is a knowledge area that is often unfamiliar to high school students. Slightly fewer than 28% were able to respond correctly. These data are shown in Exhibit 7.8.

Exhibit 7.8

Percentage of Student Response to Prose Items

Question	*No Response*	*Correct*	*Incorrect*	*Total*
Prose 2–4	23.4	33.0	43.6	100
Prose 2–8	20.4	27.7	51.2	100

Document. Questions 1-5 through 1-10 required the students to read a map which included a Native American reservation and to identify certain landmarks. The six questions required increasing skill in reading and understanding a map. Question 1-5 stated: "The largest part of the Navajo Indian Reservation is in what state?" About 41% of the students answered correctly. About 37% responded correctly to a subsequent question (1-8) which required greater map reading skills: "Name the national monuments located in the Navajo Indian Reservation." A large majority of students attempted to provide answers to both these questions, but were incorrect 44 and 51 percent of the time, respectively. These data are shown in Exhibit 7.9.

Exhibit 7.9

Percentage of Student Response to Document Items				
Question	***No Response***	***Correct***	***Incorrect***	***Total***
Document 1–5	14.7	40.9	44.4	100
Document 1–8	11.9	36.7	51.4	100

Quantitative. A number of questions proved to be difficult for a large percentage of the students who took this test. On Questions 1-6A, -6B, and -6C the student was asked to fill out an order form for two quarts of oil (the price for one quart was given), compute sales tax at 6%, and enter the total amount of the sale: "Suppose you live in New Jersey and you order 2 quarts of fuel oil. Fill out the order form indicating your order and its cost. You do not have to indicate method of payment or shipping information." About 15% of the students did not provide an answer for the cost of the oil, and another 14% provided an incorrect response (Question 1-6A). The most problematic area was in computing the sales tax for this purchase (Question 1-6B), where only 11% responded correctly. Data for these items are shown in Exhibit 7.10.

Exhibit 7.10

Percentage of Student Response to Quantitative Items 1-6A, -B				
Question	***No Response***	***Correct***	***Incorrect***	***Total***
Quantitative 1–6A	15.5	69.9	14.6	100
Quantitative 1–6B	31.8	11.3	56.8	100

This question was particularly difficult for a large number of students, many of whom did not correctly multiply by a decimal. Some students simply added $.06 or $6.00 to the total. Others computed some multiplication but failed to place the decimal in the correct position. Still others (31.84%) simply ignored the sales tax and left the appropriate space blank. Most students' papers revealed some calculations, i.e., they had tried to figure out the answer.

This question provided good examples of how some students were unable to see that their answers were improbable. For example, a frequent response was as follows: $39.95 x 2 = 79.90 plus .06 (tax) = $518.95. Apparently, some students had put the decimal in the wrong place when calculating the tax. They failed to recognize the improbability of paying $479 in tax for a sale of less than $80. One student noted that he would not have to pay sales tax because he would use his credit card!

The questions which proved to be most difficult for *Special Strategies* students were the two which have to do with computing the amount of income tax due using a tax table (Questions 2-4 and 2-5). On Question 2-4 the student was asked only how to calculate the tax, not to actually perform the calculation. Fewer than 50% of the students attempted to answer the question and only 6.88% were able to respond correctly. Many students attempted to make some calculations, but most indicated they did not understand how to use tax tables.

No student answered Question 2-5 correctly even though 40% provided some calculations and incorrect answers. The item read: "You are single and your only income is your salary of $19,000 per year. Use the tax table to figure out your estimated income tax." Data in Exhibit 7.11 indicate the students were baffled by this question. Some responses had the person paying $17,000 in taxes on an income of $19,500. This question also produced the largest number of frustrated responses from students, such as, "I would have my father figure it out because he is an accountant." One student remarked that she has never paid taxes and that when the time comes, she would take it to H & R Block (a tax preparation firm). One student responded that people should not have children so that they would not have to figure out the deductions on tax forms. This question also elicited some rude remarks from students regarding their opinion of taking such tests.

Exhibit 7.11

Percentage of Student Response to Quantitative Items 2-4, -5

Question	*No Response*	*Correct*	*Incorrect*	*Total*
Quantitative 2–4	53.3	6.9	39.8	100
Quantitative 2–5	59.4	0.0	40.6	100

Relationships Among Student Performance on Alternative Measures and Attendance

Previous studies have documented the relationship between time spent in school and student achievement. One indicator of time spent in secondary schools is student attendance. Information obtained from the student record abstract form allows an examination of the relationship between students' absenteeism and performance on alternative measures used in *Special Strategies*. Analyses in this and subsequent sections are based on a sample (N=300) of the total ninth grade cohort. These students are those for whom both *Prospects* and *Special Strategies* data were available.

As shown in Exhibit 7.12, the performance of students on the prose literacy subtest declines as a function of number of days missed. Those students who missed no days had an average score of 294, as compared to students who missed more than 30 days who scored 260 on this subtest. As might be expected, students who missed no days also had a higher average than the total sample. On the quantitative subtest, student performance declines with days missed but shows a marked drop for students absent five or more days. This drop in performance may be related to the sequential nature of math instruction which requires consistent attendance in order to be successful. On the document subtest, the pattern of decline in performance with days missed was not as clear. Although the sample is quite small (n = 4), students who missed 21-30 days performed as well as students who missed 1-2 days. This suggests that the information processing skills being tapped by the document survey may be learned from outside as well as within the school environment. In general, student performance on the document subtest was much better than performance on the other two subtests. This is surprising in that much of the content is geared toward adults.

The relationship between attendance and performance on the student essays was not clear cut. Quite surprising is the fact that students who missed 11-20 days received higher mean ratings on Topic A than students who missed no days. These ratings may be artificial due to the small sample, or other factors unique to this group of students. The average rating for Topic A for the total ninth grade cohort was 2.34 and was the same for this sample. On Topic B, the relationship was more nearly as might be expected. On average, those students who had missed no days performed at a higher level (mean = 2.47) than students who missed several or more days. Students in this sample received ratings on Topic B similar to students in the total cohort. The average rating on this essay for the total cohort was 2.17 and for this sample was 2.22.

Teacher Ratings and Student Performance on Alternative Measures

In *Prospects*, teachers were asked to rate students on their ability, achievement, potential, and whether they were above or below grade level in reading. Information obtained from the student profile allows comparisons among teachers' ratings and actual performance on alternative measures used in *Special Strategies*. As shown in Exhibit 7.13, panel 1 (page 7–20), when asked to rate *Special Strategies*

Exhibit 7.12

Student Performance on Alternative Measures by Absenteeism

	Days Absent:	None	1–2 days	3–4 days	5–10 days	11–20 days	21–30 days	>30 days	All students
Prose	Average	294.4	284.5	288.6	285.2	281.3	285.0	260.0	285.4
	Standard Dev	61.6	49.5	41.5	41.6	41.2	23.8	85.4	45.4
	N	18	40	37	53	38	4	3	193
Quantitative	Average	300.0	294.2	301.1	278.5	280.9	291.4	273.3	288.2
	Standard Dev	34.3	28.6	28.9	28.4	28.3	21.1	39.2	30.3
	N	20	47	35	60	43	7	6	218
Document	Average	308.4	294.6	309.1	287.7	279.4	292.5	282.5	293.5
	Standard Dev	41.1	51.0	36.3	45.7	47.1	20.6	49.9	45.5
	N	19	39	37	53	39	4	4	195
"Topic A"	Average	2.2	2.4	2.4	2.2	2.5	2.1	2.3	2.3
	Standard Dev	.4	.8	.7	.5	.7	.4	.5	.6
	N	18	39	32	55	36	7	6	193
"Topic B"	Average	2.5	2.2	2.2	2.1	2.2	2.4	2.0	2.2
	Standard Dev	.5	.6	.7	.7	.7	.8	.6	.6
	N	19	41	35	56	40	7	6	204

students' overall ability to perform in school, teachers ratings were moderately related to actual students' performance on the literacy subtest (eta = .34, .34, and .36 for prose, quantitative, and document, respectively) but weakly related to students' performance on the essays (eta =.09 and .18 for Topics A and B respectively). There were significant differences between the scores of students classified as high, medium, and low in ability on all of the alternative measures except Topic A. On the prose, quantitative, and document measures students in the low group performed at least one standard deviation below those in the high group. These results suggest that teacher ratings were at least moderately realistic in terms of overall ability on these alternative measures.

Data summarized in panel 2 of Exhibit 7.13, indicate that teachers' ratings of students' overall achievement levels were moderately related to actual performance on the literacy subtests. Teachers' ratings of students' quantitative performance were slightly better (eta = .39) than the relationship between ratings and achievement on the prose and document tests (eta = .32 and .36). However, teachers' ratings of achievement and student essay scores were very weak (eta = .13 and .21 for Topic A and B, respectively). Ratings did correspond to actual achievement differences among groups of students as there were significant differences between the students classified as high, medium, and low on all of the measures except for Topic A. For example, on the prose scale the students rated in the "high" category had a mean score of 306.6, nearly a full standard deviation above those in the low group who scored 266.1

In panel 3, the results of teachers responses to whether students were working up to their full potential are displayed. These ratings were very weakly related to actual student performance (eta ranged from .02 to .17). This may indicate that teachers ratings of working to potential provide more opportunity for subjective bias and perceptions on their part than ratings of student achievement. Students rated by their teachers as working to their full potential scored significantly higher on the literacy subtests and Writing Topic B than did students rated as not working to their potential.

In panel 4 (page 7–21), the relationships among teachers' ratings of students' current reading level and *Special Strategies'* alternative measures are displayed. Teacher ratings were moderately related to student achievement on the prose (eta = .30) and quantitative (eta = .42) subtests, and less related to performance on the document subtest (eta = .27), and the student essays (eta = .16 for Topic A and .19 for Topic B, respectively). Differences in performance were significant among the groups of students classified according to reading grade levels on each of the literacy subtests; however, there were no significant differences between the groups on essay scores.

Teachers were also asked to rate specific areas of student expertise. One item asked teachers to rate the math achievement level of individual students. Exhibit 7.14 displays quantitative literacy scores

of students rated by teachers ratings at grade level performance. Teachers' ratings were moderately related to actual performance levels (eta = .41). Students rated a year or more above grade level in math scored an average of 314 while those rated a year or more below scored an average of 263 on the quantitative subtest. Differences were significant between the students classified in each of the categories.

Exhibit 7.14

Teachers' Ratings of Math Achievement and Students Quantitative Literacy Performance

Student Math Achievement	Quantitative Literacy		
	Mean	SD	N
More than 1 year above grade level	314.3	27.1	23
Up to and including 1 year above	290.8	22.5	25
At grade level	288.5	28.8	68
Up to and including one year below	277.7	27.2	53
More than 1 year below grade level	263.8	25.0	18
Don't teach math	293.1	31.3	32
	F = 8.575, p, .001, eta = .41		

Teachers' ratings of student writing ability are shown in Exhibit 7.15. There was no relationship between teachers' ratings and Topic A, and a weak relationship exists between ratings and Topic B (eta = .25). Teachers may be more familiar with students report writing ability tapped by Topic B, than

Exhibit 7.15

Teachers' Ratings of Students Writing Ability and Essay Scores

Students can write a well developed coherent paragraph:	"Topic A"		"Topic B"	
	Rating	N	Rating	N
Very much	2.40	60	2.39	63
Somewhat	2.33	116	2.20	121
Not At All	2.27	18	1.78	19
	No significant difference eta = .05		F = 6.8743 p <.01 eta = .25	

Exhibit 7.13 (continued)

Student Performance on Alternative Measures by Teacher Ratings of Student Reading Skills

Panel 4: Grade Level

	Prose			Quantitative			Document			Topic A			Topic B		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
More than one year above	300.0	30.0	3	313.3	32.1	3	296.6	35.1	3	2.33	.57	3	2.00	.0	3
Up to/including one year above	294.2	33.0	7	301.0	26.8	10	297.1	30.3	7	2.44	.88	9	2.22	.66	9
At grade level	280.5	51.9	55	286.9	23.6	52	296.6	41.4	53	2.34	.66	47	2.10	.69	48
Up to/including one grade level below	267.5	36.2	16	268.1	31.5	22	276.6	31.7	15	2.11	.32	18	2.33	.65	21
More than one grade level below	249.2	45.1	13	255.2	28.9	17	254.6	56.6	13	2.21	.42	14	1.93	.70	15
Don't teach to student	295.9	40.8	93	295.1	29.0	110	300.2	45.7	98	2.42	.65	98	2.30	.62	104
	(F = 3.585, p<.001) eta = .30			(F = 9.2086, p<.0001) eta = .42			(F = 2.99, p<.01) eta = .27			(No significant diff.) eta = .16			(No significant diff) eta = .19		

of students rated by teachers at grade level performance. Teachers' ratings were moderately related to actual performance levels (eta = .41). Students who were rated a year or more above grade level in math scored an average of 314, while those rated a year or more below scored an average of 263 on the quantitative subtest. Differences were significant between the students classified in each of the categories.

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Student Math Achievement	**Quantitative Literacy**		
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More than 1 year below grade level	263.8	25.0	18
Don't teach math	293.1	31.3	32
	F = 8.575, p, .001, eta = .41		

Teachers' ratings of student writing ability are shown in Exhibit 7.15. There was no relationship between teachers' ratings and Topic A (eta = .05), and a weak relationship between ratings and Topic B (eta = .25). Teachers may be more familiar with students' report writing ability tapped by Topic B than

Exhibit 7.15

Teachers' Ratings of Students Writing Ability and Essay Scores

Students can write a well developed coherent paragraph:	**"Topic A"**		**"Topic B"**	
	Rating	**N**	**Rating**	**N**
Very much	2.40	60	2.39	63
Somewhat	2.33	116	2.20	121
Not At All	2.27	18	1.78	19
	No significant difference eta = .05		F = 6.8743 p <.01 eta = .25	

with the more analytical writing required of Topic A. Differences were significant between the students classified as being "very much" able to write a well developed paragraph to "not at all" able to write a well developed paragraph. Students at the advanced level received a rating of 2.39 while the students rated as "not at all" able received an average of 1.78.

Relationships Between Alternative and Standardized Measures of Achievement

One question regarding performance-based measures concerns the extent to which they measure different kinds of knowledge and skills than are measured by traditional standardized achievement tests. Correlations among individual students' scores on the essay topics, literacy subtests, and reading and math subtests of the CTBS standardized tests for Fall 1990, Spring 1991, and Spring 1992 were computed. As shown in Exhibit 7.16, the prose subtests had a moderate relationship with Spring 1991 and 1992 CTBS total reading (r = .46 and .55, respectively). Similarly, the document subtest was moderately related to Spring 1991 and 1992 CTBS total reading tests scores (r = .46 and .53). However, correlations were not extremely high and suggested the two measures were tapping slightly different skills compared to traditional standardized tests. Correlation was considerably higher between students' standardized math test scores and their performance on the quantitative literacy subtests. The correlation with total math on the CTBS was the same for Spring 1991 and Spring 1992 (r = .6).

The essay scores from Topic A (familiar story) were weakly correlated with Spring 1992 standardized reading comprehension scores (r = .17), vocabulary (.19), total reading (.20) and Spring 1991 comprehension (r = .31), vocabulary (r = .26), and total reading (r= .31). These scores were also weakly related to students' scores on the prose (r = .20), quantitative (r = .21), and document (r = .17) subtests. These correlations suggest that perhaps the analytical skills required by these subtests share a slight overlap with the analytical writing required in essay Topic A. Student scores on essay Topic B were not related to reading comprehension (r = .04) or vocabulary (r = .06) in Spring 1991 or 1992 standardized testing. One might expect higher correlations between student reading and writing, and between the two tasks, but correlation between the two writing tasks was extremely low (.18). It may be the restricted range of scores for the essays or that the writing tasks lack reliability that contribute to the low correlations.

Summary

On both essay topics assigned, the majority of *Special Strategies* students received an average rating of two which indicated a minimal analysis. This rating was given for Topic A papers when students summarized a story but gave no reasons for liking it. However 28% of students received an adequate or elaborated rating. This number is slightly lower than the proportion of twelfth graders in the NAEP writing assessment (36%) receiving these higher ratings but more than the number of NAEP eighth

Exhibit 7.16

Correlations Among Various Measures of Student Performance

	Fall '90						Spring '91						Spring '92										
	Vocabulary	Comprehension	Total Reading	Math Computation	Math Concepts	Total Math	Vocabulary	Comprehension	Total Reading	Math Computation	Math Concepts	Total Math	Vocabulary	Comprehension	Total Reading	Math Computation	Math Concepts	Total Math	Prose Literacy	Quant. Literacy	Document	Topic A	Topic B
Fall '90 CTBS–4 Scales																							
Comprehension	.68*																						
Total Reading	.94*	.89*																					
Math Computation	.51*	.54*	.57*																				
Math Concepts	.52*	.61*	.61*	.67*																			
Total Math	.56*	.62*	.64*	.93*	.90*																		
Spring '91 CTBS–4 Scales																							
Vocabulary	.74*	.66*	.77*	.50*	.59*	.59*																	
Comprehension	.59*	.64*	.67*	.48*	.55*	.56*	.68*																
Total Reading	.72*	.70*	.78*	.53*	.62*	.63*	.90*	.93*															
Math Computation	.51*	.52*	.56*	.77*	.70*	.80*	.55*	.57*	.61*														
Math Concepts	.33*	.35*	.36*	.51*	.55*	.57*	.45*	.47*	.51*	.63*													
Total Math	.46*	.46*	.50*	.70*	.68*	.75*	.55*	.57*	.61*	.91*	.90*												
Spring '92 CTBS–4 Scales																							
Vocabulary	.65*	.60*	.69*	.44*	.46*	.49*	.71*	.59*	.70*	.50*	.45*	.52*											
Comprehension	.44*	.51*	.51*	.42*	.40*	.45*	.53*	.54*	.58*	.47*	.39*	.47*	.66*										
Total Reading	.61*	.62*	.66*	.47*	.48*	.52*	.69*	.62*	.71*	.53*	.46*	.54*	.91*	.92*									
Math Computation	.47*	.52*	.53*	.74*	.57*	.73*	.51*	.46*	.53*	.80*	.50*	.72*	.55*	.46*	.55*								
Math Concepts	.48*	.49*	.52*	.53*	.56*	.59*	.53*	.52*	.57*	.64*	.57*	.67*	.59*	.57*	.64*	.65*							
Total Math	.53*	.56*	.59*	.69*	.62*	.72*	.58*	.54*	.61*	.79*	.60*	.77*	.63*	.56*	.66*	.90*	.92*						
ETS Adult Literacy Measures																							
Prose Adult Literacy	.36*	.49*	.45*	.38*	.42*	.44*	.44*	.42*	.47*	.46*	.46*	.49*	.48*	.52*	.55*	.42*	.38*	.43*					
Quant. Adult Literacy	.52*	.52*	.56*	.71*	.61*	.73*	.47*	.48*	.51*	.69*	.51*	.66*	.45*	.40*	.47*	.57*	.56*	.62*	.41*				
Document	.43*	.43*	.46*	.47*	.48*	.51*	.41*	.42*	.45*	.51*	.56*	.53*	.49*	.48*	.53*	.43*	.50*	.52*	.56*	.47*			
Writing assessments and Absenteeism																							
Essay Topic A	.18•	.29*	.24*	.21*	.25*	.25*	.26*	.31*	.31*	.21*	.13	.18•	.18•	.19•	.20*	.14	.20*	.19•	.20*	.22	.18•		
Essay Topic B	-.01	.03	.01	.00	-.01	.00	.12	.04	.07	.05	-.02	.01	.06	.05	.06	-.04	.04	.00	.17•	.08	.16•	.18	
Absenteeism	-.15	-.16•	-.17•	-.26*	-.22*	-.26*	-.16•	-.12	-.15	-.28*	-.05	-.18•	-.15•	-.09	-.13	-.41*	-.09	-.27*	-.08	-.23*	-.18•	.01	-.07

* $p < .01$ • $p < .05$

graders (25%). The rating of two was often given for Topic B when students failed to give one or more of the three elements required by the prompt, i.e., types of programs viewed, time spent viewing the programs, and reasons why they viewed the programs they did. Thirty percent of the students received an adequate rating. This proportion is similar to the NAEP eighth grade sample.

On the applied literacy test, *Special Strategies* students performed considerably better than young adults who had some high school education sampled in the NAEP young adult literacy assessment. This occurred on all three subtests—prose, document, and quantitative. On the prose and document subtests, *Special Strategies* students performed similarly to high school graduates.

Results from the subsample of students for whom we have *Prospects* data indicate that the relationship between absenteeism and performance varies depending on the actual alternative measure. The performance of students on prose literacy declines as a function of number of days missed. On the quantitative subtest, student performance declines with days missed but shows a marked drop after students are absent for five or more days. On the document subtest, the pattern of decline in performance with days missed did not always occur. In general, student performance on the document subtest was much better than performance on the other two subtests. This suggests that *Special Strategies* students are able to perform the information processing skills embedded in these tasks. The relationship between attendance and performance on the student essays was negligible. Quite surprising is the fact that students who missed 11–20 days received higher ratings on Topic A than students who missed no days. The average rating for Topic A for the total ninth grade cohort was 2.34 and was the same for this sample. On Topic B, the relationship was what might be expected. Those students who had missed no days received a higher rating than students who missed many days.

Teacher ratings of student ability and achievement were weakly to moderately related to *Special Strategies* students' performances on alternative measures. Teachers' ratings were moderately related to actual students' performances on the literacy subtests, but weakly related to students' performance on the essays. Even when teachers were asked to specifically rate students' writing ability, the weak correlation suggests that teachers did not have accurate notions of students' writing ability. Teacher ratings of mathematics achievement were slightly more highly related to quantitative performance (eta = .39) than the relationship between teachers' math ratings and scores on the prose and document subtests (eta = .36 and .32). These findings suggest that teachers may be more cognizant of student abilities and achievement in specific content areas, as opposed to the process of writing.

Teacher ratings of student potential were modestly related to actual student performance. This suggests that teachers' ratings of potential provide more opportunity for subjective bias on their part than ratings of student achievement.

The correlational analysis between the CTBS reading and math scores for Spring 1991 and Spring 1992 indicated that the prose subtests had a moderate relationship to both Spring 1991 and 1992 CTBS total reading score (r = .46 and .55, respectively). Similarly, the document subtest was moderately related to Spring 1991 and 1992 CTBS total reading tests scores (r = .46 and .53). However, the correlations are not extremely high and suggest that the two measures are tapping slightly different skills compared to traditional standardized tests. There was a considerably higher correlation between students' standardized math tests scores and their performance on the quantitative literacy subtests. This finding suggests there is more overlap with traditional math standardized tests; however, the mathematical operations are embedded within specific literacy contexts.

The essay scores from Topic A (familiar story) were weakly correlated with spring '92 standardized reading comprehension scores and Spring 1991 comprehension. Student scores on essay Topic B were not related to reading comprehension or vocabulary in Spring 1991 or 1992 standardized testing. The two essay scores were very weakly correlated and suggest the tasks may lack reliability. One might expect higher and consistent correlations between student reading and writing, and it may be the reliability or restricted range of scores for the essays that contributed to the weakness of the relationship.

These findings suggest that students in the *Special Strategies* sample have acquired the information processing skills embedded in various literacy tasks nearly equivalent to those of high school graduates. The student essay scores, however, suggest that writing skills for a majority of students in this sample are not well developed. We are less certain of this finding because of the question of reliability of the measures. It is clear from the study that the alternative measures used provide a slightly different picture of *Special Strategies* students' skills and achievements than would typically be obtained with traditional standardized measures.

Part III

IMPLEMENTATION AND REPLICATION

Chapter Eight

Special Strategies at Work in Schools: Observing Dynamic Webs

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Introduction

Watching a Special Strategy at work is not seeing a set of component parts put in place as much as seeing a web of relationships in action.

The stories which opened this report describe the complex simultaneous interactions which are Special Strategies as people experience them in schools. Telling stories is one way to illuminate the reality of the Special Strategies as they are experienced. We struggle, however, with ways to analyze aspects of the interaction and still reflect the relationship of these parts to the whole. We struggle, too, with ways to shed light on the interaction of the whole environment, to illuminate the quality of the experience.

Analysis of the Special Strategies of the kind in the preceding chapter—identifying and comparing component parts, illuminating aspects in theory and in practice—is critical to understanding the nature and effect of the strategies. Observing a program in action in a school, however, is not seeing a set of discrete component parts as much as it is seeing a dynamic web—relationships of ideas, models, talents, personalities, resources, hopes, dreams, fears, and actions woven together, creating a complex, continually changing learning environment. An analysis of the case studies with attention to the interaction of program aspects can give us other kinds of insights into the Special Strategies we are observing, which may in turn lead to additional insights for implementation, replication, and policy.

If implementing a Special Strategy means choosing a program with component parts and inserting it into a school, then we may find ourselves focusing on topics such as the kinds and numbers of resources (do we need a part-time facilitator, or a Jostens computer lab, with 15 or 40 stations?), or on the amount of staff development (number of days allotted by the district, percentage of budget), or on specific changes in curriculum content (are we using more multicultural materials, do we need to

incorporate more higher order thinking skills?), or on any number of other program aspects. If, on the other hand, implementing a Special Strategy means creating and maintaining a dynamic system—or even more likely, reshaping (or replacing) one system with another, then we may find ourselves focusing on very different issues indeed.

A preliminary look at the second year qualitative data from the point of view of Special Strategies as interactive systems illuminates :

- the interrelatedness of all aspects of implementation,
- the usefulness of metaphors to describe program implementation,
- the importance of context, not merely as a backdrop for program implementation but as an active part of programs,
- several important facets of the Special Strategies as implemented, including anchor points, roles, power, range of impact, and value, and
- the vulnerability of implemented special strategies.

Looking at implementation and replication issues in the second year qualitative data systemically shows us that implementing a program is not just addition, subtraction, multiplication, or division; it's webbing.

Describing Special Strategies in Action: Webbing Metaphors

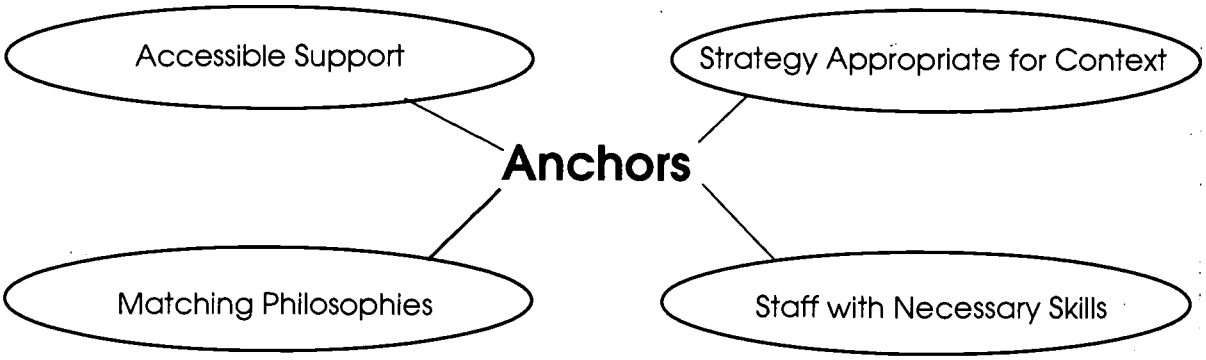
Metaphors of webbing, or netmaking, seem at this point in the study to be powerful images for describing what field researchers see when they observe Special Strategies implemented in schools. In a web, one thread supports and is supported by other threads it comes in contact with, creating an integrated whole. Webs can be tightly or loosely woven, big or small. Well-woven webs have strength, flexibility, resiliency, intricacy, artistry, balance. Webs, too, are often constantly under construction—in continuous transition of building, repairing, expanding, or neglect. Webs can also be tenuously anchored, incompletely woven, or simply full of holes. How well nets are woven is related to how well they serve their functions; well-woven nets do their jobs.

When we look at Special Strategies as interactive webs, we need words which reflect the active and relational aspects of what we see. Our descriptions of how special strategies operate may be expressed as a cluster of terms, a cluster which shows the relational aspects of their roles. Cluster terms can reflect the interrelatedness of what we see when we observe Special Strategies in action.

The clusters described here are those which grow simultaneously from a reading of the second year case reports and an early exploration of the metaphor. Illustrations in this chapter are taken primarily

from the case reports submitted by site teams; in some instances, the illustrations have been edited for length or clarity. A few examples grew from discussions at the study's analytic meetings or have been written specifically for this chapter by a field researcher who visited the site.

Cluster: Anchors. One dimension of an implemented Special Strategy is the larger context in which the web is woven. Some special strategies are implemented in contexts (in themselves dynamic systems) which offer them strong and numerous anchor points; other programs are anchored in shifting sands. In the case reports for second-year site visits, field researchers noted several contextual anchor points which seemed to contribute to constructing strong webs of support for implementing Special Strategies programs. They include choosing a strategy appropriate for the context, having staff who already possess some of the skills necessary to make a Special Strategy work, matching the philosophy of the district/school with the approach of the Special Strategy, and having accessible support.



One anchor point for solid web construction seems to be choosing a Special Strategy appropriate for the school and community. Few of the longitudinal sites chose a particular Special Strategy through a carefully constructed process of needs assessment. Researchers reported stories of Special Strategies being initiated because someone heard about the program (often from a respected source), gathered enough information about the program to decide it would be appropriate for their school and students, and then lobbied for its adoption.

> At Reading Recovery Replication Site 2 (RR RS-2), a reading teacher had first sought information about a different reading program offered through his state Department of Education, but asked for Reading Recovery training instead when he heard a presentation on that program at a state Chapter 1 conference. He preferred the Reading Recovery program because he thought it was more intensive and thorough than

his original choice, and because training and continued support for the program was available at the university center nearest his school—no small consideration in the desert southwest, where 'nearest his school' translates into about 100 miles. Since his training, he has lobbied for the program's expansion at his school. As a respected faculty member now convinced RR is one program which makes his Native American students competitive with students from schools and communities off the reservation, he has been successful in expanding the program in his school: two other first grader teachers have already been trained and he hopes that by next year all first grade teachers will have been trained.

At Comer Replication Site 1 (Comer RS-1), the principal heard about the Comer model through his new superintendent, who handed him an article on the model, saying he thought the principal would like to know about this. As principal of a school soon to be opened in a predominately African-American and economically depressed neighborhood in the midst of a wealthy white county, the principal thought the Comer model would be an appropriate vehicle for the wide range of services which the children and the community needed. The principal sought district support, got Comer training for himself, and opened his new school on the Comer model.

To anchor a Special Strategy, some of the staff need specific attitudes and skills required by the program.

At Comer RS-1, the principal has had years of training in site-based management and negotiation skills. The School Planning and Management Team at this school has wrestled with difficult decisions regarding budget and personnel cuts and union issues but members report they do reach consensus because the principal has taught them how to work together. The union representative reported that she had seen some very difficult issues discussed at the table but people left understanding the reasons for the joint decision and with no hard feelings. In one parent's words, the principal "runs a wonderful meeting."

At CES-E, however, the principal (who has since been replaced) was not willing or able to make changes for multi-time blocks necessary for implementing the program. Although a block of teachers was enthusiastic and committed to the new model, they felt thwarted by a principal who did not have the attitude and perhaps lacked the skills to help them succeed.

Another anchor point for establishing a Special Strategy web seems to be some match between the philosophy of the strategy and the philosophy of the district.

At Comer RS-1, the principal noted that the district had always "thought developmentally."

At RR RS-3, one teacher-leader and local principal discussed the fact that the developmental philosophy of the district hindered some people's acceptance of the Reading Recovery program because they weren't accustomed to expecting very much from small children. In addition, they were used to identifying children on the basis of their problems rather than on their strengths. One RR RS-3 teacher sought help from the teacher-leader for one of her students who was not making satisfactory progress, a boy who had been diagnosed with learning disabilities. The teacher-leader blamed the teacher's difficulties on the district's philosophy regarding learning disabilities. She feared the teacher was not succeeding with the student because she had heard too often from too many people that LD students can't do the things she was asking this child to do.

Paideia-A was established in a district placing increased interest in critical thinking skills. The district is one among many in a large urban area now generally emphasizing site-based management. The

implementation of Paideia-A is consistent with the priority of the school's local district, if not with the chief priority of the entire city system.

Another anchor is accessibility, both of initial information and continuing support.

At RR-B, the state has mandated the program and provided legislative support, including funds to support training and the spread of training sites across the state. In contrast, at RR-A in the northwest, teachers had to travel to Ohio State for a year in order to be certified. Leadership by the state set up an infrastructure that cannot be duplicated easily in district-by-district adoption.

At RR RS-3, geography plays an important part in adoption and continuing support. With only two trained teacher-leaders, the teacher-leaders find it difficult to provide services to an entire state. One teacher-leader lives in the middle of the state and the other in the south-central area and each covers her geographical territory. To bring training opportunities to the thinly-populated northern area, one of them lived there temporarily for several days a week during part of a year. They devise ways to meet their obligations for support despite long drives between schools. One teacher-leader, for instance, now has her teachers tape record teaching and discontinuing sessions so she can listen to them in the car as she drives. She reports spending several hours on the telephone almost every evening.

One kind of continuing support is funding. Promising programs seldom start with guaranteed funding. The Extended Year Schoolwide Projects are an exception. The school district guaranteed funding for five years, all principals and teachers made a five-year commitment to their ten schools, and a private foundation pledged a decade of staff development support. Over the five years, some principals were replaced, the vast majority of teachers stayed, and the district kept its promise on program components. The schools, however, were not immune to the district's fiscal ills. In the program's fourth year, for example, all teachers took a three percent pay cut, as did their counterparts in other schools in the district.

Cluster: Roles. If one dimension of a Special Strategy is the context it is woven into, another dimension is the roles people play in the daily interaction of establishing and maintaining a Special Strategy learning environment. For example, the leadership role: in the course of the study, field researchers have reported many instances of the importance of leadership in the Special Strategies' schools. They have described principals, program directors, and others in terms which show these leaders exhibiting (or lacking) the characteristics of good leaders described in recent school leadership literature.

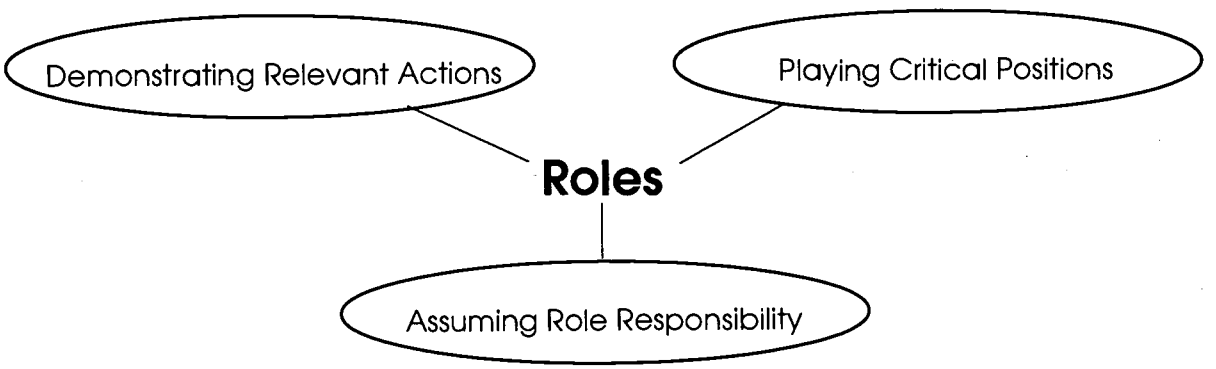
At CES-A, all of the faculty interviewed commented that the principal was a strong leader, committed to making a difference in the lives of the students at the school. Field researchers noted his efforts to bring faculty into the new program, recording that when he announced that the entire school would use the Coalition model in school year 1991-92, he was warm and open but firm, saying "If we're going to create a shared vision, everyone has to be on board. . .to function as a total school. The more we learn the better we will become. . .we have got to learn new ways of teaching." On several occasions the principal discussed with observers how teachers need to be "brought along in the process." Although field researchers observed that to date the site is far from having every faculty person in the high school an enthusiastic practitioner of Coalition principles, they had observed some evidence of change in pedagogy from traditional high school classes in every visit.

At CCC-B, site visitors described the principal's approach as "closer to disconnection than to any

philosophy of leadership." The teachers expressed disdain for his lack of interest in the school, condemned his imposition of additional testing burdens on the third grade so that (should there be achievement test gains) he would qualify for a principal's monetary bonus of $600. The teachers also criticized the principal for his participation on a state board of education because he misses at least two working days each month when attending state level meetings. The teachers expressed openly to field researchers their hope that the principal will leave the school.

In many sites, however, people can be described in other ways—less in terms of traditional leadership characteristics and more in terms of how they mesh with their environments.

When we view special strategies in action in schools, we see a network of people who can be described using relational terms, terms that shed light on how they work within the learning environment created by the strategy. In looking at how people work within the web, we need active terms to describe the dynamic nature of their roles—terms such as playing critical positions, assuming role responsibility, and demonstrating relevant actions. We need, too, terms that show the interrelatedness, the overlap in all the aspects of their roles as well as with other dimensions of the web.



Some of the people in the web playing critical roles are creating the specific kind of learning environment promoted by a Special Strategy. In other situations, however, people are playing critical roles in the learning environment but the mesh between their actions and the Special Strategy is, at least, problematic.

At Comer Replication Site 1 (Comer RS-1), the principal thinks it is his job as instructional leader to convey the philosophy of the Comer program. He says, "It's not just a structure—it's accepting a philosophy and operating on it on a daily basis." He communicates and models the Comer vision. To communicate the vision, he says "Somebody has to preach the sermon," and he welcomes the visiting district guidance counselors with the words, "We have something for you to see here, everyone working together." The assistant principal says the communication is working: "Everyone here knows what the focus is." One of the skills he models is problem-solving. For this principal, problems are opportunities for creative solutions; it is his job to show teachers that they can problem solve. When the guidance counselors discussed the effects of proposed budget cuts, one said they would rethink the case management system to see how it can work with fewer people and resources, saying, "We'll have to find new ways," then adding

she learned how to do that from the principal.

At Schoolwide-B, visitors described the principal as "fearless and undaunted" in the face of the extremely impoverished drug-infested projects that surround her school. She was seen (in her combat boots and baggy skirt) walking around the block, and across the street in the projects shouting to parents in open windows who had not sent their kids to school. She said, "They know me and see me coming and they get those kids out of there." She believes that the only way for a school like hers to be effective is for it to extend into the community.

An investigator at Schoolwide-D notes that it is difficult to separate the schoolwide project from the principal since she designed the program and it reflects her own beliefs and goals for the children and her school. It is not a cohesive learning program but a mix of various changes including reduction in class size and some staff development in programs like cooperative learning and higher order thinking skills. Since the principal has come to this school, however, there have been major changes in the operation of the school. Children are no longer beaten indiscriminately, the building is clean, many fewer fights break out in the hallways, teachers do not leave their classes unattended, materials are distributed fairly among teachers, teachers are expected to raise standardized test scores and to teach to the individual learning styles of students. It is difficult to determine what changes are the result of being a schoolwide project and what changes are occurring due to this principal; under this leader, the school would be clean and the teachers attempting to implement new practices even if she had not written a schoolwide project application.

In addition to people who hold positions traditionally labeled as leadership roles (principals and program directors, for instance), people in other positions also played critical roles in establishing and maintaining the schools' webs. People in positions not identified as leadership in traditional organizational charts were nevertheless vital to some special strategies. They held responsible positions and filled them responsibly.

At CCC-B, field researchers commented that in looking at the program as a whole "in no way can it be described as a successful Special Strategy." Nevertheless, they also noted the contribution made by the computer laboratory proctor, a high school graduate who assists students with the curriculum's materials and monitors their progress through the program, preparing reports for her own records and for teachers (including a weekly summary report to teachers with students working in the lab). She is helpful to and affectionate with students and has earned the respect of faculty members. To the visiting observers, she seemed exceptionally dedicated and caring. People within and outside the school credited her for much of the good which has come from the operation of the lab.

At some sites there are examples of people with critical roles having difficulty because their philosophies and actions are not a comfortable fit with the kind of learning environment promoted by the Special Strategy. Sometimes their actions, however successful in other situations, were not relevant to the Special Strategy.

At Schoolwide-D, the principal, successful in making major changes in the organization and safety of her school, has difficulty with the shared governance aspect of a schoolwide project. At Schoolwide-D it seems often that the principal makes the decisions and the staff carries them out. When one faculty member on the schoolwide planning committee described their decision to purchase a computer lab, she explained that

improving technological skills is a priority of the new superintendent and the principal and the Chapter 1 director wanted them to vote that way. Even small things reveal this principal's approach to leadership: even in the presence of teachers and staff working with her, she consistently refers to "my" school and "my" program.

At Comer-B, observers comment that the principal has created a decision-making team which responds to her needs rather than making group decisions. The topics are hers, not shared ones. In addition, they note that the mental health team is a disciplinary unit, reacting to student behaviors rather than doing proactive school climate work.

At another Comer school in the same district as Comer Replication Site 1, a school planning and management team voted to disband because they thought they were not accomplishing anything. One parent member said all they did was fight.

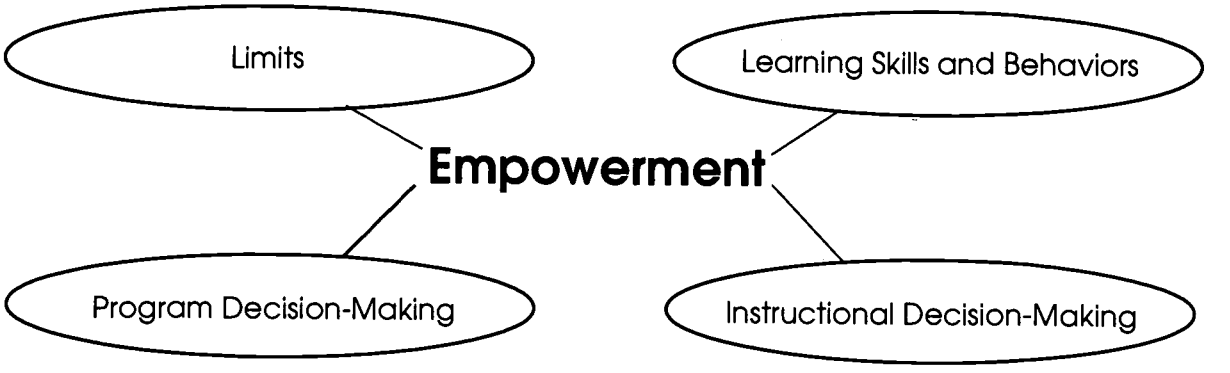
Sometimes people were gradually pulled into the network, learning how to operate in the new Special Strategy environment. At other sites, the tension between those who are part of the new configuration and those who are resisting being pulled in is palpable.

At Paideia-B, one of the fourth grade teachers is a young Iranian man who had been an engineer. After deciding he wanted to do something more meaningful with his life, he became an elementary teacher, substituted at the school last year and this year is a first-year full-time teacher. Site observers report that in one year he has taken great strides toward becoming a model Paideia teacher. After beginning as a traditional classroom teacher, he has developed his questioning skills to the point that probing questions which can potentially help the children to develop critical thinking skills are a noticeable part of his teaching. Additionally, he very skillfully integrates these questioning skills and other Paideia teaching behaviors into every curriculum area. Finally, he truly integrates the contents area into each other. For example, he began one school day with a discussion of a story set in Egypt. After discussion of plot, character and theme, he moved the children into a social studies lesson about Egypt. During social studies, he pulled out Egyptian coins along with coins from other countries and conducted a math lesson in which the students converted amounts from one monetary system to another.

At CES-A, the CES program is changing from a school-within-a-school to encompass the entire school. Visitors reported that the principal expressed his concern about getting some of the teachers to change. "Some of them are going to need a lot of hand holding and reassurances. . . . They are afraid of change. . .but they're going to have to do it."

Cluster: Empowerment. Still another descriptive cluster revolves around aspects of power and empowerment. Implementing a Special Strategy involves a redistribution, sometimes a re-conceptualization, of power. Some of the special strategies ask school faculty to participate in decision making in new arenas, in new ways. Some ask participants to change the nature and limits of their responsibilities. Most of them ask teachers to adapt their pedagogical approaches. Every strategy asks ask all school participants to behave in ways that are different from their past experiences of life in school. To participate in this new configuration, individuals and groups learn new attitudes, methods, and skills. Changes in power are

intertwined with empowerment. Limitations on learning and using new powers consistent with the Special Strategy hinder its implementation.



Some special strategies have, as part of their model, decision-making powers by faculty groups.

> At Comer-A, first grade teachers said they wanted to go on to second grade with their students. They proposed this to the School Planning and Management Team, which accepted their idea enthusiastically. In the new configuration created by the Special Strategy, the teachers felt empowered to imagine, to ask, and to do, and their colleagues on the decision-making team supported them.

> At Schoolwide-C, the principal outlined the procedures for the school governance committee to visiting field researchers, saying that when she left the school one of the things she wanted to leave behind was a more self-governing faculty. Fourth grade teachers in this year's observations said it had been difficult for them to learn how to operate on this kind of committee, never having had this opportunity before. They said this is new, it takes time to learn how to do this. Several other faculty members, however, were skeptical of the new process. They reported that they felt the choices made by the committee were false ones—that the principal did not present all the information, did not provide time for discussion and reflection, and directed the outcome she wanted.

Other strategies require professional decision making at the instructional level or new pedagogical skills, empowering teachers.

> At RR RS-1, teachers testified to their increased sense of professionalism after having been trained in the program. Teachers consistently commented that now they knew what to do when a student was having a problem. They could diagnose accurately, choose how to respond, and document the student's progress, all of which contributed to their feeling like successful professionals.

> At CES-B support for staff development is strong from several sources: the district, the school, the Coalition of Essential Schools, and a cadre of teachers. Specific options include in-house staff training which includes "a little bit of Sizer, a whole lot of school reform," a two-day residential training session for inservice credit, 13-15 teachers per year attending Coalition Forums, district workshops, institute fellowships, and individual teacher grants.

Students can be empowered by the effective implementation of special strategies. Basic literacy skills, advanced thinking skills, self-esteem—all the goals of Special Strategies programs have the potential to empower students as they learn. Empowering students can also mean teaching them to take responsibility for their actions.

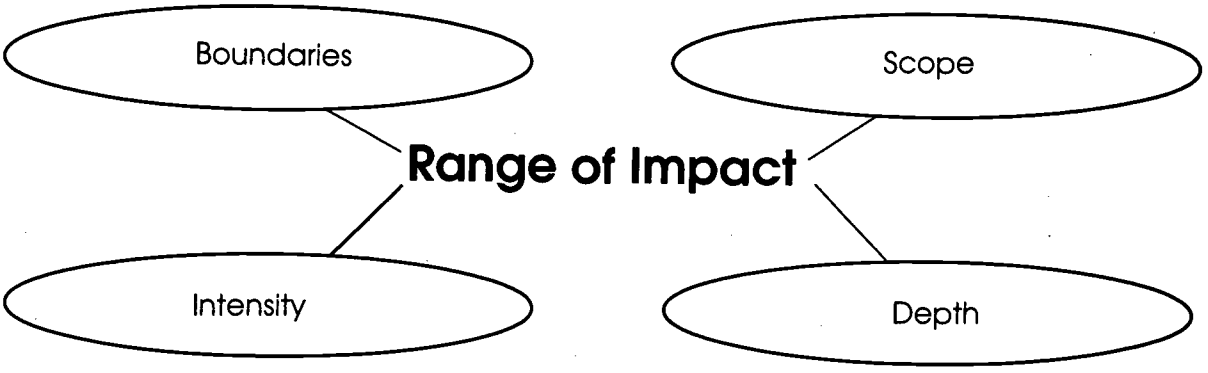
> In one Extended Year Schoolwide Project, the motto of the school—Learning Begins with Me—reflects the school's philosophy for children to assume responsibility for their own actions. Field researchers saw it in action. While researchers were in the midst of an interview with the principal, an eight-year-old boy entered the outer office. He was screaming and yelling, out of control. Neither the office staff nor assistant principal could quiet him down, and researchers could not hear the principal over the screaming. The principal was called out of the office to quiet the boy, and after a few minutes the boy was sobbing quietly. Knowing the interview was not going to begin again soon, the visitors went across the hall to the library. About 15 minutes later, the principal and the boy came into the library, and the principal said that the boy wanted to tell them something. Walking over by himself, the boy looked one researcher in the eye and softly but clearly said: "I apologize for screaming. I was out of control. I'm sorry that I interrupted your meeting." The visitor told him that she appreciated his apology and his taking responsibility for his actions. Later on, the principal said that it was a troubling time for the boy, who might be changing foster homes again.

In some situations, people with powers outside the boundaries of the Special Strategy impose limits on its participants. At other sites, people may not be able to grasp the power they could have.

> In Schoolwide-D, the principal showed one of the study researchers an inch-thick file on a teacher she had tried and failed to move from her school. The district was unwilling to support the principal's efforts.
>
> At RR RS-1 and RS-2, teacher-leaders noted they had no power over which teachers were chosen for Reading Recovery training. Local principals decided who they would train and hire for their schools.
>
> At RR RS-1, the district coordinator noted that the requirement to write her Chapter 1 proposal with district-wide plans and goals limited how she would like to vary services in different school sites in the district.
>
> At SFA-B, the field researcher described the principal's efforts at change as "stalled" and said she continues to be interrupt-driven, her pace through the halls halted by teachers with complaints, by parents who are in the building, or by children that she notices are misbehaving. Every time she leaves her office, five people are waiting to see her with no priorities or appointments or order to the process. The field researcher's summary comment: The principal, despite her sincerity, is not equal to solving the problems or even to making people feel better about them.

Cluster: Range of Impact. Implementing a Special Strategy means dealing with the range of impact of the strategy—the scope, depth, intensity, and boundaries of the program. Some Special Strategies are small, dense, intense dynamic webs; they may require great changes in multiple factors (attitudes, skills, content, structures, methods) but across few people or a small physical space. Other Special Strategies weave large, loose webs, and participants sometimes debate what is and is not acceptable to let fall through the net. Some strategies have clear boundaries; what is "in" and what is "out" of the bounds of this program's responsibility is known to all. Others have diffuse or expanding

boundaries; the evolving model-as-implemented is reaching out to and taking in more and more people and responsibilities.



Different strategies use different criteria to determine the limits of their responsibilities; sometimes it's not how much they are responsible for, but to whom:

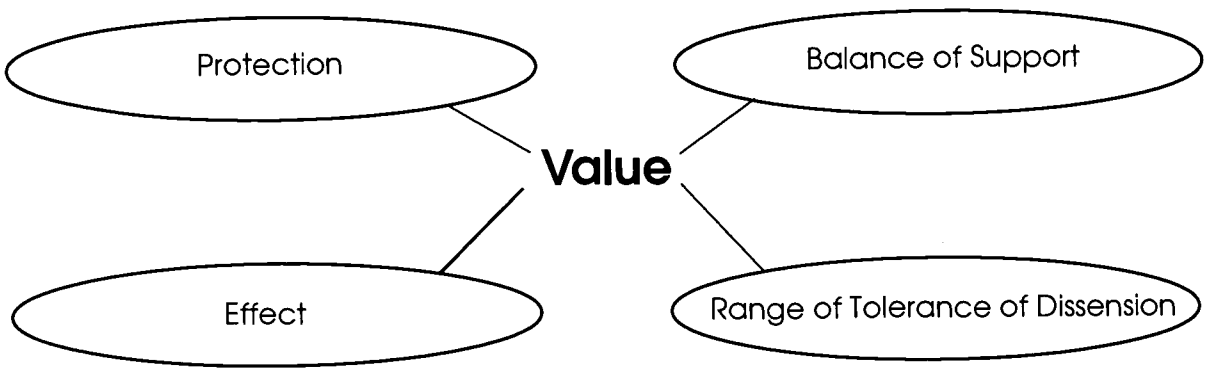
> At Comer RS-1, the principal sees the boundaries of his Comer school expanding to serve various needs of the community. He wants his school to be a "full-service school," functioning as the center of community life. He is now working on having adult education, health services, social services, and a food stamp office on the school campus. During the site visit for this study he learned that the county has purchased the land across the road for a new pre-school, which will move early childhood services to his area as well. Nevertheless, even he places some boundaries around what his school is and is not responsible for. He is now identifying 50-60 students he thinks are illegally registered and will move them out and into their legitimate neighborhood schools as soon as possible. He says his school is willing to be responsible for their students but not for everyone's. Other schools need to improve their services; not all kids can go to school here.

Nor does the strategy's range of impact necessarily depend on the design of the model:

> At RR-B, the program is implemented as designed. It involves only a few first grade students and teachers. There are clear boundaries around the very small program; everyone knows who is and isn't a Reading Recovery student and teacher. In contrast, at RR RS-1, the Reading Recovery philosophy, methods, and materials have permeated all aspects of the language arts program in the district. In addition to the standard first-grade program, many regular classroom teachers, some administrators (including principals of schools with the program and some central office personnel) have been trained and continue to work with children, special education teachers have been trained to work with students who are not able to graduate from Reading Recovery within 60 lessons, even some librarians have been trained and are leveling library books to support the program in the classroom. The same Special Strategy has had a much broader impact because of the way it has been implemented.

Cluster: Value. In many cases special strategies are seen as valuable, as worth doing, are believed in. Some people value a strategy enough to adopt it; others value it enough to try to make it work, maintain

or improve its implementation, although not everyone may value it equally or in the same way (or even at all). In many of the sites, field researchers commented that administrators and teachers implementing the Special Strategies were "true believers," convinced that what they were doing was "working" and was "good for kids." At other sites, not everyone was "on board." The value of a strategy is linked with the sense of quality of the process and the perception of effect.



Some special strategies have faced and survived public hostility.

> At Schoolwide-C, the school was picketed by angry community members who moved from picketing the high school (having had none of their demands met) to Schoolwide-C. The protest was ostensibly against a court order aimed at integrating school district faculty and administration; formerly almost 100% African-American, the school now had a new white principal and several white teachers. Another factor in the protest, however, was that the school had become a Schoolwide Project, which some members of the community interpreted as a "special ed program." Field researchers at this site reported the events of the picketing to be "a matter of point of view." The principal dug in, believing she was making changes which benefited children's educations. The superintendent and president of the Board attempted to intervene to end the protest, but in vain. Eventually the protest died out.
>
> When a new school in a predominately African-American neighborhood opened as a Comer school, a community leader who published a weekly newspaper ran a series of pieces attacking, in particular, the fact that the principal and majority of faculty were white. The attacks continued for the first several months the school was open. Parents reported a lot of "community hysteria," saying people were selling houses and putting kids in private schools. The principal said later that had the newspaper attacks continued he thinks they could have derailed the Comer project because good staff members would have left the school, unwilling to deal with the strife. In fact, though, parents who were active in the school (an important aspect of the Comer model) and other community members prevailed upon the newspaper editor and his followers to desist because they liked what was happening for their children at the school.

In some sites, the balance of those who value the strategy and those who do not participate in the valuing is precarious.

At RR RS-3, Reading Recovery teachers were enthusiastic about the program. One first grade teacher agreed with them, reporting that she was very pleased with the progress the children in her room had made this year. Two other first grade teachers were less pleased. They complained that the children consistently missed other important lessons for their Reading Recovery appointments. Even more, they were disturbed that the behaviors the children were learning in Reading Recovery were not transferring into the classroom—in the group, the students were not reading fluently or working independently.

Something valued is something protected, nurtured, maintained. At sites in which participants are "true believers" in their strategies, they work on quality control.

At RR RS-1, teacher-leaders are now training some of their own Reading Recovery teachers to be teacher-leaders in the future. At practice sessions "behind the glass" the old teacher-leaders drill their new counterparts like Army master sergeants, asking questions like, "What is happening here?" and "What page of the M. Clay book would you go to for what to do now?" They expect—and get—rapid fire responses. The teacher-leaders also do demonstration sessions for their new counterparts, then ask for criticism of their own performances.

To maintain something valuable, at some sites people sacrificed—they reconfigured their environment to support the Special Strategy.

At RR RS-2, teachers gave up their aides because they thought the kids needed Reading Recovery more than they themselves needed aides. One teacher added a bit wistfully they had had great aides, but giving them up was worth it for the kids.

Fragile Webs

Many of the learning environment webs created by the Special Strategies are fragile and easily broken. Even the valued, well-implemented, and growing ones are vulnerable to events that can disrupt, limit, or even destroy them. For Special Strategies programs there are no guarantees. Many operate in precarious environments, uncertain of what shape, size, or direction their programs will have to take in response to forces often beyond their control—some of them, uncertain even that they will continue to exist.

Because of the network-like action of Special Strategies in schools, threats have ripple effects, sending shock waves through the whole web of the learning environment. During the first two years of the study, field researchers have observed a number of different threats to establishing and maintaining effective Special Strategies in operation; Four which seem now to be especially disruptive are funding problems, personnel changes, legal interpretations, and the unexpected.

Funding. Many of the Special Strategies observed in the study were begun with "seed money,"

funding separate from and in addition to the regular operating budget for already existing programs. Chapter 1 funds were a significant part—or the entire part—of the seed money in many programs. For example:

- Program directors for Reading Recovery programs in three states said that their programs would not exist if they had not had Chapter 1 funds to begin them.
- The availability of Chapter 1 funds is one of the chief forces behind the initiation of schoolwide projects in the rural and urban sites in the study.

Other funding sources are also represented in the study's sites. These are a few examples of some of those other funding sources :

- Both rural CES programs were begun with funds from the Education Commission of the States.
- A non-Chapter 1 school won a grant from their state to use funds tagged for innovative projects to become a Success for All site.
- A Success for All replication site was funded in part by the Pew Charitable Trust, which contributed materials, and by the developer, which contributed staff development services.

Most of the special strategies observed in the study continue to use Chapter 1 funds to maintain all or parts of the Special Strategy in their schools.

Funding Cuts. Special strategies faced with funding cuts are dealing with serious threats to their learning environments.

> The Comer program at RS-1 is facing massive budget cuts, due in part to a state equalization of funding plan. The guidance department, of critical importance in the Comer model for conducting student staffings and home visits, has been cut from four people to one. Some personnel are losing jobs; retiring personnel will not be replaced. Job descriptions and procedures are being rewritten to cover tasks. The principal—who carries his Comer philosophy of positive problem-solving into the area of finance—says the budget crunch is an opportunity for creative solutions. Next year Chapter 1 funds, for example, will enable the school to keep its aides. Not everyone at the school is as sanguine as the principal about compensating for major budget cuts. Although they recognize their principal's skill (he is, one said, "the king of finding new ways of doing things") they still see no way to continue without a cutback in services. They are concerned about whether or not they can keep up their high level of effort. They say everyone will need to do more but "with Comer, we are already doing more." One added, "We will do what we are humanly capable of doing" but "something will give."
>
> The Paideia program at site A is at risk of diminished support from the business community. A local bank, facing an uncertain banking market, has cut its support for the program in half.
>
> At Success for All RS-1, funding for the second year of the project is in jeopardy. The $450,000 grant was

not sufficient to fully fund two Success for All projects in two schools and a few other smaller projects recommended by the planning committee as well. It barely covered the cost of the first year.

At CES-A, cuts mean the school no longer has extra teaching slots which reduced class size at the beginning of the program. Teachers now meet only once a week, not twice, for planning.

Even well-established special strategies are vulnerable to funding cuts.

At RR-2, the director said nothing can sink her program now "except lack of money." Next year they plan to cut back services because of a lack of funds, though publicly they call it "concentrating services." The 10 most needy schools are ranked. The five most needy will receive "comprehensive service" which means they will receive a 6% increase, the percentage of Chapter 1 dollars the director expects from her state. The next five schools, the director says, will "hold their own," and then she adds, " I hope." Services to other schools will be phased out.

At RR RS-1, Chapter 1 funds were seed money to begin the program and they support 75% of the program's budget now. The district, which has lost 25% of its budget across the board through a new state plan to equalize funds among districts, developed a three-tiered plan for managing the cuts. Highly valued in the district, Reading Recovery is in the "third tier," in the list of most protected programs (in the same category as the football team). Even so, the director says they "live in fear" and do active public relations to keep the value of their program in front of the school board and community.

Funding Uncertainties. While some special strategies are dealing with certain budget cuts, others live in an environment of uncertainty. They may begin their programs by taking a great risk and only hope they will be able to continue. Sometimes they operate in the midst of rumors of possible cuts, or uncertainty about the percentage of increased funding from Chapter 1 and the state. Uncertainties in funding sources and levels make it difficult to do long-range planning for some special strategies.

The Chapter 1 director in RR RS-2 started Reading Recovery in her district before she knew how she could pay for it. One of her Chapter 1 schools wanted the program but couldn't afford to send a teacher to Ohio State University for training. She found a sympathetic audience in a chairperson at a local university who told her if she would form a collaborative with several other districts, the university would find them a teacher-leader. The Chapter 1 director used her Chapter 1 funds to buy in to the collaborative and then later convinced her school board she had done the right thing. Actually, she adds, she bartered with her superintendent: she would give in to his request to use some Chapter 1 money for a Writing-to-Read lab, his pet program, if he'd let her participate in hers, the collaborative. The director is convinced that Reading Recovery would not have gotten started in that first school without Chapter 1 funds, nor would it have spread to other schools in the district.

The Chapter 1 director in RR RS-2 now uses Chapter 1 funds to expand RR throughout her district—to train personnel and begin the program in a new school each year. After the first year of support, a school must take over the program so she can use Chapter 1 funds to begin the program at a new site. To date she has been funding Reading Recovery in her district entirely on carryover funds. Because she had been frugal over the years, she had built up a large reserve. Now, though, her state has limited her carryover to 15% of her budget and the bulk of it will be gone during the next school year. She plans to continue to use carryover funds to support Reading Recovery as long as the money lasts and "hopes something else comes

up" after that.

She is, however, doing more than hoping. Her job as director, she claims, is more and more to do creative funding to keep projects alive. When principals tell her they cannot afford to pick up operating funds, she simply asks them which of their first graders they plan to allow to fail next year and which one of them will be the person to tell the child's parents that he or she will be allowed to fail? Next summer she will fund Reading Recovery instruction for summer school (only for students who did not discontinue during the school year) out of money saved because Reading Recovery teachers did not use all of their sick leave this year. She will fund an additional teacher at one school because the teachers voted to give up their aides. They had great aides, one teacher added, but "Reading Recovery can do more for the kids."

This Special Strategy continues in an atmosphere of uncertainty, but the director says if she had waited to see where maintenance or future growth funds were coming from, she never would have started the program.

Underfunding. Strategies which have not faced budget cuts nevertheless sometimes consider themselves underfunded. Some strategies were unable to fund the entire model from the beginning of the program.

At a Success for All replication site, the school has not been able to raise enough funding to implement the entire model. The Success for All program was instigated by a principal but with a vote from the faculty which supported her search for funds. She wrote a proposal for state funds through a special office which supports innovative projects in education via revenue generated from an increase in state sales tax. The school received $375,000 for three years of implementation, about $125,000 per year. This funding level, however, is not sufficient to support a parent involvement component, although the principal thinks parent participation is a critical part of implementation.

Others wish for additional funding to improve the quality of their services.

Reading Recovery teacher-leaders in several sites struggle with issues of quality control. They have an ongoing commitment to support the teachers they have trained who are now out in schools, but the number of teachers they are responsible for keeps growing. The numbers of teachers they are responsible for training is increasing as well. Three teacher-leaders at three different sites said their class load has doubled in the last several years. Teacher-leaders talked of making their teachers independent as much as possible and of teaching them how to rely on each other. Nevertheless, teacher-leaders need to serve as models, coaches, and evaluators—and, increasingly, there are not enough of them to go around.

Still others would like to expand. Implementers say when they know they have a good thing, they would like to be able to do more of it.

As a long-term plan, RR RS-2 would like to train all kindergarten, first, and second grade teachers as well as the Chapter 1 teachers who serve upper grades through small group instruction. With this model the director thinks she would then need only two or three full-time Reading Recovery teachers to work with individual children whose needs were not being met in the regular classroom. Even in the short term, RR RS-2 would like to expand, placing more Reading Recovery teachers in the "Valley" rather than in the "Heights." With a district dramatically divided into a "poor" area and a "rich" area, the Chapter 1 director would like to be able to offer more dense service in the schools which serve the poorest children, perhaps putting three or four Reading Recovery teachers in each of the Valley schools.

> At another school in RR RS-2, on the reservation south of a major metropolitan city in the southwest, the Chapter 1 director says that Reading Recovery now uses about 40% of the Chapter 1 budget for the district. Just to serve the entire first grade population of one reservation school, they must train three more teachers, which will double the size of the program and also double the cost.

The lack of sufficient long-term stable funding, then, changes a Special Strategy in action. People lose jobs, change jobs, rewrite job descriptions, struggle with additional responsibilities, have fewer training opportunities, and deal with low morale. Administrators become fund-raisers, juggle funding sources and regulations to create patchwork support for programs, spend time on public relations to keep programs alive. Staff make adaptations to the program to deal with fewer resources or choose more affordable resources, limit the number of students who can participate, limit the scope and depth of the program, and worry about quality control. Funding problems impact all aspects of the web of activity that makes up a Special Strategy in a school. Ripple effects roll throughout the entire Special Strategy, impacting the learning environment, the program itself, and ultimately, the students.

Personnel Changes. Personnel changes at a school can threaten the effectiveness or even the existence of a Special Strategy. Of course, not all personnel changes are threats. Some, in fact, are positive, as when they help insure a better match between the program and the staff.

> In Schoolwide-A, the principal brought transfer forms to one startup meeting, urging teachers who were not comfortable with the approach to consider transferring to other schools. The same tactic at a different site, however, produced a different result. When the principal of rural Schoolwide-D included in her morning announcements an offer to teachers to come pick up transfer forms if they weren't happy, four of her best faculty members asked for forms.

> In one rural schoolwide project (Schoolwide-C), more than half the faculty changed over when the principal instituted a thorough teacher assessment system. The school had been reputed to be a dumping ground for bad teachers in the district.

> In one Paideia school (Paideia-A), the principal upgraded the teaching staff by not renewing the contracts of uncertified teachers.

> Some special strategies require management styles and expertise that are not shared by all principals. The principal at one Extended Year Schoolwide Project was viewed by the faculty as a tough unilateral decision maker uncomfortable with a shared decision making model. Although there was a period of adjustment for the school staff after his retirement, the teachers now feel that the new principal's management style more closely matches the program's goals.

At some sites, personnel changes are even wished for.

After finding herself unable to remove a remaining handful of weak but firmly established teachers, the principal at Schoolwide-D was left with only the hope that they will take early retirement or move to other schools. The principal at Comer RS-1 expressed his concern with district office staff who tried to overrule his staffing decisions by placing weak teachers in his program, saying "people with power can undermine what you are doing."

Nevertheless, losing skilled, powerful, and enthusiastic personnel can change the character of a Special Strategy or threaten its existence.

The future of Reading Recovery at RS-4 is uncertain. At the end of the 1991-92 school year, the principal has taken a position in the central office, the Reading Recovery teacher trainer has moved to the eastern part of the state to begin a new reading program there, and the one trained Reading Recovery teacher has moved to a school closer to her home. The district says it already has a substantial financial investment in the program and so will probably look to hire trained Reading Recovery teachers, if possible, so the program can continue. Now, however, no one is left who can implement the program.

At the end of the second year of a schoolwide project at a rural site (Schoolwide-C), the principal continued as the head of her school in name as she phased into a new position in the district central office. Without her strong presence on campus daily, the school began to unravel. Disaffected faculty members were more outspoken in their criticism of her direction of the project. The school governance committee had difficulty with its major task: to interview and select a new principal. One teacher commented to a visiting field researcher that even the floors aren't as clean since she hasn't been around.

In the two years of this study a CES site in the east which experiences high student mobility also had a 50 percent staff turnover, a new principal, a number of new teachers, and this year a new dean.

Another CES site lost two innovative teachers who were models for implementation of the program to the state, which is implementing a state education reform movement.

A new superintendent phased out a tutoring program, not as a decision based on its effectiveness, but because he wanted to implement computer-based instruction in the district.

At Paideia-A, the Paideia coordinator died after a long-term illness. Although the new coordinator has been involved in the development of the program since its initiation in the school nine years ago and is seen as a stable force, her leadership is also seen as less thoughtful and insightful than that of the original coordinator.

At Paideia-B, the school is experiencing substantial turnover in part because some teachers want "out" and others want "in" to the program. The school, too, is experiencing multiple program changes initiated by a personnel change. A new district superintendent, coming with his own agendas, instituted 11 new programs in one school at the beginning of the school year.

At Comer RS-1, faculty and staff consistently stated that the single greatest threat to their continuing success was the possibility of losing their principal. Although the principal has not expressed any intention of leaving, several people noted that in past years the central office had pulled him out of a school to use his expertise more generally throughout the district and they are afraid that may happen again.

Changes in and Application of Laws, Regulations. Interpretations of Chapter 1 laws and regulations can threaten programs. In an attempt to minimize the threat of convoluted interpretations, some people try to learn to "work the system." At times administrators can manipulate the rules of the system to the program's advantage and sometimes they cannot.

> The administrator of a Reading Recovery program at RS-1 said she "just got smart enough to know how to ask the question" of her state contact person and so has learned a new way to write her district's Chapter 1 funding proposal in terms of percentages rather than numbers, which will give them more dollars next year and so enable them to reach more children.

> In Schoolwide-D, a schoolwide project has been temporarily suspended from operation after three years. Regulations for schoolwide projects require maintaining level funding, but the district does not have the money to support the project at its present level, so they have suspended operation of all Schoolwides in the district for a year in order to let the funding level drop, saying they will then reinstate schoolwide projects the following year at a lower funding level. This interpretation is seen as a way to meet the requirements of the law and regulations and yet deal with the fiscal realities of the district. In the coming school year, field researchers will have an opportunity to observe the impact of the project's temporary suspension.

> At RR RS-1, the district coordinator is concerned about ways she thinks Chapter 1 regulations (or how her state decides to interpret them) restrict how well she can implement her Special Strategy. With fewer strings she could be "more responsive." Rather than having to make district-wide decisions, for example, she would like to be able to make site-based decisions and at different times during the program year. One specific instance is the need to move Reading Recovery teachers from school to school during the school year. By spring some teachers have served and graduated all the eligible children in their school. The coordinator would like to be able to transfer those teachers to other schools, even for four to eight weeks, so they can serve eligible children not being reached (or to work with other Chapter 1 small literacy groups or to do staff development). Now, however, she can implement only plans based on district-wide student numbers and teacher distributions. Furthermore, she finds it difficult to get Chapter 1 proposals revised in mid-year. "If you get the wrong person on the phone, you can get turned down."

Others expressed concern about what future changes in the law and regulations might mean for their programs. A few examples:

> One state Chapter 1 coordinator whose budget helps to support Reading Recovery in his state is concerned that new Chapter 1 legislation and regulations could hamper the adoption and implementation of Reading Recovery and other programs. Even though he is generally pleased with the impact Reading Recovery has made in his state, he is not in favor of seeing it or any other special programs on a list of acceptable or encouraged programs because he thinks an approved list limits people's openness to other good options. In his opinion, statements in the last Chapter 1 legislation about using effective schools research was not encouraging but "delimiting" because school personnel thought it was safer to do what was mentioned in the laws and regulations rather than something else which they might have to defend but which could have been imaginative and appropriate for their students. If Reading Recovery has to be on a list, he added, there should be a way to encourage "the broadest scope" of choice.

> Personnel at a racially mixed Comer site are concerned about the possibility of a version of vouchers or choice. One administrator said, "If we get Choices, we could go back to a defacto segregated system."

The Unexpected. Unexpected events can disrupt the implementation of a Special Strategy, creating unusual circumstances. Unexpected events can force reconfigurations of the webs, or even a series of reconfigurations, which in the long run may strengthen or weaken a project but in the short run at least require attention.

Two Special Strategies schools are located in south central Los Angeles, where rioting broke out in late April of 1992. Many stores (and entire shopping centers) were looted and burned, hundreds of people were injured, and over 50 people died. When the schools reopened several days after the rioting started, students and teachers talked about what had happened, about their feelings, and how they wanted to rebuild their community. School principals and staff wanted to use the time to help heal the community and take positive action.

One first/second grade class undertook a project called "Building a Friendly Community." Students and parents were polled on how they would like their community rebuilt. In their letter eliciting the views of other second graders, they wrote:

> Room 36 needs your input. We have addressed the hurts, the fears and the concerns over last week's tragedy. We're now looking forward to the building and rebuilding of our communities.
>
> Please assist us in our efforts to express our ideas as to what second graders would most like to see *more* of as plans are being reconsidered for reconstruction.
>
> Thank you!
>
> We will share the results.

Students and their parents wrote about what buildings they would like to see in their communities. The top three ranked items from students were toy stores, museums, and video stores; their parents wanted medical buildings, libraries, and restaurants. These lists were incorporated into a letter to the chairman of the LA Rebuilding Committee who promptly replied, thanking them and telling them that their suggestions would be considered.

The healing process also included lessons in values of right and wrong. In the midst of one discussion in another second grade class, one boy said: "I liked the riots. I got a new pair of shoes. I never had a new pair of shoes." His teacher nodded and asked quietly: "There's nothing wrong with wanting a new pair of shoes, but is looting a good idea?" The teacher turned to the rest of the class and asked them what they thought about looting. As the discussion proceeded, the children decided that looting was not good.

At CES-A, asbestos used in the construction of the building forced the program to change locations. When the central office proposed to close the school permanently because of lack of funds to remove the asbestos, parents lobbied to keep the school open so their children would not have to be bused to another area. For the two years that the building was being renovated, the CES school shared a building with another high school, a move which teachers described as having a disruptive influence on the instructional program. Field researchers visiting the jointly occupied building noted the large numbers of students, separate organizational structures (principals, schedules, staff), and complex facility, all of which contributed to a "chaotic atmosphere." Although the move had an effect on the entire school program, CES teachers thought it disrupted the Special Strategy in particular. The before-school and after-school remedial and enrichment

programs were dropped because the students were being bused. The Coalition teachers were scattered over various floors and wings in a large, complex, multi-wing facility in which teachers complained "you have to go up to get down and out to get in." During the present year of the study, faculty and students have moved again, this time returning to the newly renovated original school building.

At Comer RS-2, the school also shares its facilities. The K-5 elementary school is in a new building located about two blocks from its former site. Although the new building was originally intended for the Comer School, during construction another faculty from the district's African-American Academy approached the school board about their being housed in the new building. Following much discussion a compromise was reached. The Comer school would retain its intended site but during the 1991-92 school year both schools would be housed in the building and serve only half of each student body and operate with only half staff. The two schools have operated under the same roof for nine months. They share the cafeteria, auditorium, media center, and playground. A visitor for this study noted that the atmosphere in the Comer project is quite positive. Teachers treat students with respect and model problem-solving and conflict resolution skills in their dealings with children. In contrast, the tone of the African-American Academy seems much harsher and more authoritarian. Considering that the affective climate of a school is an integral part of the Comer model, the faculty is implementing the model successfully in difficult circumstances.

Preliminary Policy Implications

If implementing a Special Strategy means creating and nurturing a different, dynamic, interactive configuration, then in general we can consider the following:

- Protect against threats to the system—
  - √ identify and minimize major threats to the creation and continuance of the system,
  - √ identify and provide ways to help people respond to unexpected threats to the system,
- Approach all aspects of program implementation from a systems perspective—rather than doing more pieces of the same, doing something different everywhere—
  - √ if the system is an interactive whole, then plan, decide,train, and assess as a whole;
  - √ if the system is a relational whole, attend to relationships and communication;
  - √ if the system is a dynamic whole, attend to process and continuity, the "how" and "when," not just the "what" and "why";
  - √ if the system is an evolving whole, attend to "outcomes" not as endpoints but as cross-sections or freeze frames ; consider assessments which are contextual, holistic, multiple, longitudinal, relational, directional;
- Approach each site as a unique configuration of a system, requiring individual responses.

In year three of the study, field researchers may want to look again at their Special Strategies sites for further understanding of them as dynamic interactive learning environments. Some possible questions to direct observations include the following:

- In addition to the ones listed above, what other kinds of clusters and webs characterize the learning environments created by the special strategies as they are implemented? Another cluster, for example, may be one of communication (including information flow). Yet another may address issues of accountability and responsibility.

- What other threats do the Special Strategies face? Are some programs more vulnerable than others to certain kinds of threats?

- Are some kinds of webs more difficult to build than others? Inside the web, are some of the interconnections harder to make than others? Does this differ according to the Special Strategy?

Looking Beyond Webs

In this section we have used metaphors of webbing,and netting to describe what we see when we observe special strategies in action in schools. There may, however, be other equally powerful or even more illuminating metaphors to help us understand how special strategies work.

In their reports, field researchers occasionally use vivid images to describe what they see during site visits: they refer to a school as "an oasis in a desert," or a class as "boot camp for fourth graders." One researcher described site SFA-A as a "family," one in which "there isn't much money, everyone is busy, and a few members of the family are pretty odd, but overall there is the support of closeness." More attention to our own language, our own images, may give us further insights into the meaning of what we are seeing. The language of the people implementing special strategies at school sites may be worth attending to as well. Field researchers, as one example, sometimes say a lesson was "beautiful." Artistic language, aesthetic criteria may give us insights into how special strategies work. If art is beautiful, enriching, balanced, in harmony, with direction, color, force, focus, impact—perhaps artfully conceived and implemented Special Strategies programs can be described in these ways, too.

Other languages may be worth exploring. If the metaphor of webbing gives us pictures of interconnected aspects to create a whole, it nevertheless reduces the picture of a program to a flat, schematic diagram. A richer view may be that of a culture or subculture. The anthropological language of culture and cultural change, may be another way to describe what we see in our program sites. As field researchers continue to study their sites, they may find other languages with which to describe Special Strategies.

Chapter Nine

Issues in Replicating Special Strategies

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Overview

A major research question for the study of Special Strategies is to assess the replicability of alternative and successful strategies. Over the past two years, we have visited each Special Strategies school at least four times. We also visited up to four other sites (called "replication" sites), which were representative implementations of the strategy in other settings.

In this chapter, we present implementation guidance based upon what factors appear to facilitate or impede the operation of the Special Strategies schools. The guidance is derived from what principals and other school staff reported was needed, from field team's analysis of their pair of sites, and from a cross-case analysis of patterns across all sites. Working hypotheses were then elaborated during the analytic meetings with all field staff.

Each program is described separately with implementation guidance focused on four topics:

- Preconditions to implementation;
- Roles of key staff (that is, principals, teachers, and parents);
- Instructional methods and curriculum; and
- Needed resources, including hidden costs.

Following the recommendations are examples that serve to illustrate their importance.

The first five programs entail large scale change in schools, either in instruction and curriculum or in school governance. These programs are: Sizer's Coalition of Essential Schools, Comer School Development, Paideia schools, Success for All, and Chapter 1 schoolwide projects. The remaining four programs are adjuncts to the regular school program. They include Reading Recovery, CCC, tutoring, and extended time (after school and summer).

Coalition of Essential Schools

The Coalition of Essential Schools builds upon the principles outlined by Theodore Sizer in *Horace's Compromise*, that schools personalize teaching and learning (including a decreased teacher-student ratio), promote interdisciplinary teaching, and focus learning on important usable skills or knowledge (that is, on "essential" skills) whose mastery is assessed through portfolios or demonstrations. The principles are vague by design, so that teachers and schools match the Sizer principles to their particular circumstances.

Preconditions to Implementation

Schools have a welcoming attitude toward change and are managed well.

Schools have sufficient autonomy for effective site-based management. Critical points include autonomy over the initial decision to implement the strategy, the allocation of resources, and the transfer of teachers.

Sizer principles must be seen by school personnel as the appropriate solution for the school's problems.

Where Sizer principles were seen as the most appropriate solution for the school's problems and where schools had sufficient authority to allocate resources and transfer teachers, the Sizer program was implemented with considerable enthusiasm. In the CES–B high school, for example, the Sizer philosophy is seen as the ideal approach to reverse its low attendance and high dropout rates. The principal, teachers, and superintendent all realized that ninth grade students were very difficult to teach, so they focused their initial efforts there.

Where schools are reluctant participants in the strategy, on the other hand, implementation is fragmented and incomplete. In CES–E, for example,the Sizer "school" is so far not much more than a collection of Sizer "classrooms."

Roles of Key Staff

Principals are strong supporters of the model. Either the principal or core teaching staff can also translate Sizer principles into concrete instructional strategies.

The principal's support is also needed to counter the inactivity of reluctant or opposing teachers, a critical concern because the ultimate aim is to transform the school.

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The principal alters the school calendar to facilitate team teaching, joint planning sessions, and multi-hour classes.

Teachers play a critical role because the translation and implementation of the philosophy is in their hands. Furthermore, teacher commitment and experience are key to successful implementation.

The teachers must be prepared to take on several roles as teacher, counselor, and manager.

Parents are to participate in conferences and events; some schools have quarterly meetings with parents.

For Sizer high schools, the principal's visible commitment is needed to provide the managerial and scheduling support teachers need. In one of the better-implemented Sizer schools, for example, the principal is described by one team leader as follows:

> It amazes me how wise [the principal] is. She has so much common sense at the management level. She is always positive, never negative. She encourages teachers to be leaders and to travel for professional development. She opens the school to parents. She is a public relations person, and is excellent at getting special grants.

As more Sizer schools move from a school-within-a-school to a schoolwide concept, the principal's visible support for the programs appears especially critical, because it is the principal who sets schoolwide policy (such as the principal in CES–B eliminating both the honors program and the special education track) and who must turn around reluctant faculty.

In CES–E, where the principal has taken a "hands-off" attitude toward the program, the teachers created interesting interdisciplinary units, but they must work within the traditional schedule of eight or nine periods of 47 minutes each, rather than in the multi-hour blocks suggested by Sizer. Joint planning had to be done on teachers' own time because the principal did not change the school calendar.

For some teachers in Sizer schools, their involvement has been a transforming experience. As one teacher said: "This program gives the teacher a chance to improve and enjoy his/her career more, but it doesn't guarantee it." Where teachers are enthused about the strategy, the voluntary commitment of time and resources is astonishing, as shown below.

> One teacher applying to the CES–B high school was asked: "What weeks out of the summer can you give for curriculum development?" "Give?" the applicant teacher replied. The teachers explained that all members of the team spent at least three or four weeks of their own time to develop materials and curriculum.

All honoraria and fees paid to the teaching staff in the CES–A school for the training and presentations they conduct for the Coalition of Essential Schools and Brown University are donated to their high school for student scholarships. The teachers collectively made that decision.

In the CES–E project where no joint planning time was provided, teachers worked on their own time to get some projects together. They would have done more interdisciplinary work, but needed some time during the school year or some paid work during the summer.

Although parent participation is not a cornerstone of all Sizer schools, most reach out to parents more than typical high schools. Teachers in one Sizer program, for example, called parents monthly to discuss student progress. In another, parents are important members of the audience during exhibits of students' work (assessment by demonstration).

Instructional Methods and Curriculum

Implementing Sizer principles in the curriculum and teacher pedagogy requires an overhaul of traditional teaching and classroom scheduling and experimentation with new approaches (such as team teaching, interdisciplinary units, and alternative assessments of students). There is far more to the Sizer approach than the reduction of class size or elongated class periods.

Creating a positive school climate and sense of trust among students and teachers appears to be implemented first in Sizer schools, facilitated in part by the 80:1 student/teacher ratio (down from the more typical 125:1 ratio found in most high schools). One school spent a year developing a "tone of decency," an atmosphere where students respected teachers and their fellow students.

The curriculum-related aspects of the Sizer principles are more difficult to implement and sustain. Staff in CES–A, the best established of the Sizer schools, reported the key to their success was that they have taken the time to decide what the content of the high school curriculum should be. They have operationalized the "student as worker" concept by well thought out and carefully designed portfolio requirements and demonstrations. Seniors, for example, cannot graduate from high school without a successful demonstration project. When the Sizer effort is a school-within-a-school, staff have been able to implement both interdisciplinary curricula and multi-period blocks of study; these components have been difficult to sustain when staff sought to implement the principles throughout the school.

Resources

Among the additional resources needed are the following:

- Extra staff positions that allow teachers to have joint planning time; daily joint planning periods are recommended.
- Reduced student-teacher ratio of 80:1, about half that found in traditional high schools.
- A coordinator/facilitator to oversee day-to-day operation (whether this is a full-time or part-time position varies by school).
- Staff development for core staff with Brown University or others closely associated with the Coalition of Essential Schools, and extensive ongoing staff development for other school staff.
- Staff visits to other Sizer schools.
- Staff time to decide what the content of the high school curriculum should be and how to assess student performance through portfolio requirements and demonstrations.

Extra resources are reflected in the hidden costs of extensive volunteer time that principals, teachers and others devote to making substantial changes in their schools. Teachers have invested their own time after school and during the summer to implement the Sizer program. Additionally, local school districts provide support in the form of staff development or other in-kind support. Even with such support, several CES schools find that sustaining the reduction in student-teacher ratios is particularly challenging.

One Sizer principle is that the per pupil cost should not exceed that of traditional high schools by more than 10 percent. This goal could well mean cutting other services offered in traditional comprehensive high schools.

Comer School Development Program

Under the Comer model, schools are to integrate the community into all aspects of school planning and operation. This includes shared decision-making processes and a curriculum that deals with the whole child, not just her or his cognitive development. Parents, teachers, the principal and other staff all participate in aspects of the school's decision-making processes.

Preconditions to Implementation

Schools have a welcoming attitude toward change and are well managed.

Schools have sufficient autonomy for effective site-based management. Critical points include autonomy over the initial decision to implement the strategy, the allocation of resources, and the transfer of teachers. *(continued)*

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The underlying philosophy and assumptions about shared decision making, the whole child perspective, and the high expectations for student success, are shared by school staff. If school staff do not buy into the program, the principal has the authority to replace them.

Because the core of the Comer model is to restructure schools, the school must be able to decide whether it wants to participate. In one school in our study, the Comer model was imposed upon the school as part of a desegregation settlement. Partly as a consequence, the implementation has not gone well. Furthermore, the focus of the school on student discipline has precluded the Mental Health Team from addressing the positive school climate goals of the Comer model.

Roles of Key Staff

The principal is a strong supporter of the model who can also translate Comer principles into concrete action.

Other key staff are the social worker and school psychologist, who are two members of the Mental Health Team, and the curriculum specialist.

Parents serve on three levels: as members of the School Planning and Management Team, as aides to classroom teachers (with the goal of one parent per teacher) and broad-based parent activities. A parent coordinator position is often funded to oversee parent activities.

The two Comer schools are a study of contrasting principals. In Comer–A, the principal has relinquished the traditional authority role to share decision making with parents, teachers, and other staff. Governance of the school is addressed through the School Planning and Management Team; the chair's position is rotated on a regular basis. In Comer-B, on the other hand, the principal is not viewed as an advocate of shared decision making, and teachers perceive the shared decision-making team as a "rubber stamp" of the principal.

For the Comer model to succeed, community participation, particularly from parents, is critical at all levels of school functioning. In both Comer schools, parent involvement in the school was high, but in only one school (Comer-A) were the parents active in school decision making (including the hiring of teachers). In this well-implemented program, staff, students and parents feel a sense of ownership and personal responsibility for the school program.

Instructional Methods and Curriculum

Although the primary objective of the Comer school is to integrate the community into the school and its governance, teachers are to become more attuned to the needs of the whole child, and to integrate a mental health approach into curriculum activities. A "social skills" curriculum is to be developed and implemented in classrooms.

Some Comer schools work on an expanded curriculum within the community. Additionally, school staff meet in housing projects to talk about efforts to decrease the level of substance abuse.

Resources

Among the resources needed are the following:

- A full-time curriculum specialist to integrate the mental health perspective into curriculum activities, including the development of the "social skills" curriculum.
- A parent coordinator to help recruit and sustain parent involvement in all aspects of the school.
- Sufficient staff time to accommodate biweekly School Planning and Management Team meetings and biweekly Mental Health Team meetings. If not already present in the school, a social worker and school psychologist are funded at least half-time to serve on the Mental Health Team, provide child development and mental health sensitive services, and suggest to teachers ways to manage and prevent early and potential problem behaviors.
- Staff development with the program developer, visits to other Comer schools, and ongoing staff development with teachers and parents on how to implement Comer principles in school decision making and in the classroom.
- Such materials as may be needed for the "social skills" curriculum.

In one site visited, not all of the resources necessary to implement are in place. The Comer program also entails hidden costs of extensive volunteer time that principals, teachers, other school staff members, and parents devote to making substantial changes in their schools.

Paideia Schools

The Paideia schools derive from Mortimer Adler's suggestions that instruction build upon the liberal arts tradition that there are certain pieces of literature that all educated people should read and explore. Three instructional methods are encouraged: didactic instruction, coaching and Socratic seminars. Socratic seminars are discussions in which students and teachers explore ideas. In Socratic seminars, the teacher is an instructional facilitator and a seeker of knowledge rather than a storehouse of knowledge. The chief goals of Paideia schools are to increase interactive instruction and build students' critical thinking skills.

Preconditions to Implementation

Schools have a welcoming attitude toward change and are well managed.

Schools have sufficient autonomy for effective site-based management. Critical points include autonomy over the initial decision to implement the strategy, the allocation of resources, and the transfer of teachers.

The Paideia principles, especially the Socratic seminars, are perceived by school personnel as appropriate instruction. If school staff do not buy into the program, the principal has the authority to replace teaching staff.

Site-based management is strongly endorsed by the school district within which Paideia-A is located. As a result, the principal pursues programs she supports, including Paideia. In Paideia-B, on the other hand, this year's introduction of 11 new programs from a district initiative have undermined the implementation of Paideia. Furthermore, in Paideia-A, the principal wanted to upgrade the teaching staff and did not renew the contracts of uncertified teachers. In Paideia-B, a 25 percent turnover in staff over the past two years has resulted in current staff being more dedicated to the Paideia concept.

Roles of Key Staff

Principals are strong supporters of the model. Either the principal or the Paideia coordinator (a full-time position) can also translate Paideia principles into concrete instructional strategies.

The principal is willing to reconfigure the school day to accommodate the time for the Paideia Socratic seminar (up to 2.5 hours once a week).

Teachers play a critical role because the translation and implementation of the philosophy is in their hands. Teacher commitment and experience are key to successful implementation. Variation in implementation may occur across classrooms in the same school.

Teacher experience and training are crucial to implementing the Socratic seminars and coaching. Our observations from both years indicate that how well Adler's principles are followed appears to depend upon individual teachers as much as schools.

Instructional Methods and Curriculum

Major changes are required throughout the curriculum, including shifting the traditional roles of teachers to facilitators and coaches to enhance students' critical thinking skills.

In the two Paideia schools, the Socratic seminars operate throughout all grades one day a week. In the first year, seminar and coaching went from 1.5 to 2.5 hours. A more pervasive implementation of Adler's philosophy throughout the school day is yet to be seen. In fact, in the second year, class time was initially reduced from the prior year. The availability of staff development nearby has made a difference in both schools, as has the presence of Paideia coordinators who can translate the principles into concrete instructional strategies. The major instructional issues remaining include the wide range of reading abilities within one group, large class size, and the lack of planning time.

Resources

Among the resources needed are the following:

- Full-time school coordinator who helps translate instructional materials into practices and recommends materials for the Socratic seminars. Typically this position is filled by a master teacher who has strong leadership ability and is well regarded by other teachers in the schools.
- Staff development such as core training with those closely associated with the model, visits to other Paideia schools, and ongoing training for all teaching staff (weekly debriefings are preferred).
- Materials acquisition, such as the *Junior Great Books*. Some implementers choose more in the way of supportive resources, including computers to assist in the coaching of students, electronic bookshelves to monitor students' reading, hands-on science materials, and whole-language-based texts.

All programs entail hidden costs of extensive volunteer time that principals, teachers, parents, and others devote to making substantial changes in their schools.

Success for All

Success for All (SFA) is a structured and intensive early intervention program that aims to have all students performing at grade level by the third grade. Among the specific program components is the regrouping of students from heterogeneous classes into 90-minute homogeneous ability reading groups. In addition to the reading program, SFA uses certified teachers as one-on-one reading tutors in daily 20-

minute sessions. Students are assessed each eight weeks; changes may be made in tutoring or in their reading placement. Tutors also work with regular reading teachers during the daily 90-minute reading periods.

Preconditions to Implementation

Schools have a welcoming attitude toward change and are well managed.

Schools have sufficient autonomy for effective site-based management. Critical points include autonomy over the initial decision to implement the strategy, the allocation of resources, and the transfer of teachers.

The Success for All components must be seen by school personnel as the appropriate solution for the school's problems.

The need for some school autonomy is reflected in the experiences of both SFA schools. In the more successful implementation (SFA-A), the school principal negotiated compromises prior to accepting the program. In the less successful site, the current principal arrived after the agreement to participate was signed, and no such arrangements were made during her first year at the school. At the end of the first year, the school lost its schoolwide standing and had to drastically revamp its SFA program.

Key Roles of Staff

Principal is a strong supporter of the model, as is the Success for All facilitator.

The principal and teachers are willing to reconfigure the school day to accommodate the reading/language arts regroupings as well as the one-on-one instruction.

Teacher commitment and experience are key to successful implementation of the highly structured materials.

Parents are to listen to their children read every night for 20 minutes, serve as volunteers in the school, and participate in such programs as "Read to Me" sessions.

Teacher commitment is crucial in part because all teachers at the grade level served are to participate in this highly prescriptive replacement for the core curriculum.

Instructional Methods and Curriculum

Major changes are seen throughout the curriculum, the structure of classrooms and in teaching methods, as described above.

Resources

These are among the additional resources needed:

- An SFA facilitator to work with the principal to help plan the SFA program, help with scheduling, and work directly with teachers and tutors on instructional concerns.
- A Family Support Team (such as a social worker and attendance monitor) to recruit parents to serve as volunteers in the school, refer families to other services, and coordinate parent programs.
- Certified teachers to serve as one-on-one tutors and as reading teachers in the 90-minute reading periods, and sufficient teachers to keep the reading group ratios at a 15:1 level are required.
- Staff development prior to implementation of SFA, as well as additional in-service presentations throughout the year by the model developers.
- Space for multiple reading groups and tutors.
- Acquisition of a substantial amount of developer teaching materials; the cost for materials is estimated to be $15,000.
- Program entails hidden costs of volunteer time that principals, teachers, and others devote to making substantial changes in their schools.

Schoolwide Projects

"Schoolwide projects" under the Chapter 1 legislation represent a management and funding option, not a specific instructional program. High-poverty Chapter 1 schools, where at least 75 percent of the students are economically disadvantaged, may use their Chapter 1 funds throughout the school (and not targeted specifically on Chapter 1-eligible students) provided they submit an acceptable schoolwide plan and agree to additional accountability provisions.

Preconditions for Implementation

The more well-implemented schoolwide projects are those in schools that welcome change, are strongly managed, and have an atmosphere of mutual respect among all staff.

Site-based management and programmatic/budgetary autonomy strengthen schoolwide projects. Without programmatic autonomy, principals are hard pressed to implement a unifying vision for the school. The site must have some autonomy over the initial decision to become a schoolwide project, the allocation of resources, and the transfer of teachers who do not wish to participate.

As with philosophical approaches, the more well-implemented schoolwide projects are those in schools that welcomed change and are strongly managed. Site-based management and programmatic/ budgetary autonomy strengthen schoolwide projects, especially when principals engage in long-term planning. For example, the principal of one extended year schoolwide project commented:

> I don't want teachers to get used to something they can't keep. I never wanted a program like that. One schoolwide program put all its money into personnel, including full-time aides in classrooms, so they couldn't buy any materials. It's unbelievable that they did that. I make sure teachers get materials. I've saturated rooms with materials the teachers say they need. "Ask me, you'll get it." I try to shore them up. I don't want to make them dependent upon another person [like an aide]. I want to get teachers proficient in themselves, so we have really focused on teaching strategies. Our teachers are head and shoulders above other teachers in this city.

Without programmatic autonomy, principals are hard pressed to implement a unifying vision for the school. For example, one schoolwide project (Schoolwide-C), which in other respects appears well implemented, had to implement a district-purchased "drill and practice" computer program in its classes, although the program ran counter to the teaching methods strongly espoused by the principal.

Because principals must work with the entire faculty in a schoolwide project, a major issue is working with the more reluctant faculty. In the two extended year schoolwide projects, all faculty (and the principal) were interviewed for their positions and had to make a five-year commitment to the school before they were hired. All teachers interviewed take the five-year commitment very seriously. In another schoolwide project (Schoolwide–A), the principal brought transfer forms to one start-up meeting, urging teachers who were not comfortable with the approach to consider other schools. More than half the faculty changed over in the rural schoolwide project (Schoolwide–C), in part because the principal instituted a thorough student and teacher assessment system.

In almost all cases, schoolwide projects needed an external impetus to get started—the relaxing of the matching requirements for schoolwide projects that appeared in the Hawkins-Stafford Amendments of 1988. Four of the six schoolwides started after the Hawkins-Stafford Amendments were passed, and principals were informed of the option through their district Chapter 1 coordinators.

Roles of Key Staff

The principal is seen as an instructional leader and strong manager. The principal is responsible for providing the unifying vision for the schoolwide project.
The teaching staff is experienced, committed and empathetic to the needs of the community. School staff are sensitive to the often poverty-stricken conditions under which most children live.

(continued)

(continued from previous page)

Teachers play a critical role because they implement the instructional vision of the principal and often have an increased decision-making role. They may also jointly develop the instructional vision with the school principal. Teachers also change their instructional methods to capitalize on reduced class size, through small group and one-on-one instruction.

Community outreach and parent participation are required components of schoolwide projects.

With Chapter 1 resources targeted on improving the overall instructional program, it is up to the principal to create a unified instructional program and vision for the school. Most schoolwide projects have proposed a unified curriculum, but most have yet to be observed in classroom practice.

Shared educational decision making is also a hallmark of the more well implemented schoolwide projects. In some instances, the decision-making teams consist of the principal, a schoolwide project coordinator (in some but not all schools), master teachers in reading and math, and other professional support personnel. In two extended year schoolwide projects, parents comprise 5 of the 13 members on the decision making team. Other committees are often found; some offer a "case management" approach for working with low-achieving students, while others focus on grade specific instructional issues.

The expanded involvement of faculty in school operations and planning often brought out the most visible changes. As the reading specialist in one school noted: "The biggest change is in the people, the planning and working it out together, in seeing their ideas come into play."

In the better implemented schoolwide projects, teachers are changing their instructional methods to capitalize on reduced class size. Some are also trying to implement a whole language approach or core literature. Where schoolwide projects are most fully implemented, staff commitment and staff congeniality are readily apparent:

> In one school, the first grade teacher had been out sick for two months. In the bi-weekly school improvement meeting, marked by its friendly, open and nonthreatening tone, the group of teachers discussed ways to provide support to the returning teacher. One teacher volunteered to give up her classroom assistant for two to three days a week, a master teacher agreed to come to class to model the whole language approach, and a math specialist volunteered to work with her individually on math lessons.

In all schoolwide projects but one, community outreach and parent participation are hallmarks of the program. In the well-implemented projects, school staff are aware of the impoverished conditions under which most children live. Many children have multiple needs, and schools recognize that they must work with parents and the community to address them. Parent activities extend beyond parent volunteers

to include food and clothing drives, parent education classes, English-as-a-second-language and Spanish-as-a-second-language classes, home visits and monthly parent meetings. Expectations for an ongoing parent role were reflected in classroom observations as well. In one extended year schoolwide program, for example, one first grade teacher asked each child: "Whom did you read to last night?" Only one child had not read to an adult. He was reminded to read to his mother that night. Another teacher has parents sign off on daily homework assignments.

Instructional Methods and Curriculum

Schoolwide projects require a unified instructional program whether adapted from the effective schools literature or elsewhere.

The extent to which instructional methods and curriculum have changed in schoolwide projects varies among the six schools. Two schools (Schoolwide–A and –B) report following Madeline Hunter's prescriptions for effective instruction, although we have yet to observe that in most classrooms. The two extended year schoolwide project schools shifted to a literature-based curriculum. After four years, the principal and teachers report that the program is almost in place. Most schools have yet to capitalize on how to use reduced class size most effectively.

Staff development is a central component of most schoolwide projects, as significant changes are needed in regular classroom practices. Topics vary from school to school, usually based on individual school needs. Whole language instruction, cooperative learning, multi-racial curricula, and assertive discipline have all been subjects for staff development.

The extended year program is a central part of several schoolwide projects. It is intended to minimize student performance losses over the summer, to provide a safe and healthy environment for children, and to promote increased interest in learning through enrichment activities. For many children, the extended year also means a continuation of free breakfast and lunch programs. The extended year is also seen as a more relaxed time for both teachers and students. The extended year component is not without its disadvantages. Two principals thought that because the program was voluntary, some of the children who most needed the extra days were not attending.

Resources

Among the additional resources needed are the following:

- Professional support staff, such as one full-time counselor, one full-time instructional coordinator and/or one full-time bilingual education coordinator, and one full-time school psychologist as well as teacher aides and other paraprofessionals.

- A full-time parent coordinator (usually a paraprofessional) to help recruit and sustain parent involvement in all aspects of the school.
- Ongoing staff development for all staff based upon individual school needs. Whole language instruction, cooperative learning, multi-racial curricula, and assertive discipline have all been subjects for staff development. Staff development time can reach 15 to 20 days per year per teacher.
- Such materials as may be needed to support changes in the core curriculum.
- Salaries for school personnel for each extra day of instruction during an extended-year program (at least 20 school days).
- Sufficient professional or paraprofessional teaching staff to reduce the staff:student ratio in the classroom.

An ongoing resource issue is how to replicate these programs without taking donated time and resources for granted. All schoolwide projects have unrecorded costs in volunteer time or reduced pay.

Reading Recovery

Reading Recovery is an early intervention program designed to reduce reading failure. It is a one-on-one tutoring pullout program for first grade students who are experiencing difficulty in learning to read. Students meet daily for 30 minutes with a highly trained Reading Recovery teacher. The teacher emphasizes the use of appropriate strategies for dealing with particular difficulties. Stories to be read at home are also part of the daily work. Students may stop participating in Reading Recovery when they reach the average level of the class. Typically students remain in the program 12 to 16 weeks, although some students may continue for a full school year.

Preconditions to Implementation

Principal is supportive of (or at least neutral toward) adoption of Reading Recovery in the school.

First grade teacher(s) of Reading Recovery are experienced teachers who have successfully completed the one-year training program to become certified as Reading Recovery teachers.

Reading Recovery teachers are sufficiently committed to the teaching strategies to ensure they can fully implement them.

A separate room is available for the Reading Recovery teacher, materials, and the student.

Because Reading Recovery is an intense and expensive supplemental program typically available to only a few students at a time, it requires the visible support and advocacy of the school principal. The long-term training period and distinctive teaching strategies also require ongoing teacher commitment.

Roles of Key Staff

Principal arranges a convenient time schedule and school location, so that student receives the full complement of Reading Recovery and regular reading/language arts program.

Reading Recovery teacher and regular classroom teacher are familiar with each other's curriculum and teaching methods, so students receive consistent messages about learning how to read.

Parents are to review Reading Recovery materials sent home nightly, including readers (mini-books) and the student's sentences.

Unless the teaching strategies and materials used by Reading Recovery are known to the classroom teacher, it is possible (and was observed) that students will receive mixed messages about how to read. Unlike many supplemental programs, Reading Recovery has an explicit parent component that strongly encourages parents to review their children's work on a regular basis.

Instructional Methods and Curriculum

Reading Recovery is a self-contained curriculum, using a variety of teaching strategies, described above. One full-time Reading Recovery teacher can serve about eight children a day for 12 to 16 weeks, for about 16 to 24 students a year. Because some students may need Reading Recovery for a year, the total number may be less than 16. Integration of Reading Recovery into the regular classroom's reading program is essential for students to receive consistent instructions.

Resources

Among the additional resources needed are the following:

- One year of staff development for each Reading Recovery teacher. Initial staff development must occur at a certified training site, so expenses may also include travel and living expenses.
- The full complement of Reading Recovery materials, including the Diagnostic Survey and mini-books (about 700 books), and periodic updating of materials.
- Sufficient private physical space for each Reading Recovery teacher and student.

- Joint planning time between Reading Recovery teachers and classroom teachers so that children receive consistent directions on how to approach words and stories. In neither school visited during the first year was the Reading Recovery and regular classroom instruction well coordinated, leading us to recommend joint planning time.

Computer Curriculum Corporation (CCC)

The Computer Curriculum Corporation (CCC) educational software for computer-assisted instruction is designed for use in a dedicated computer laboratory staffed by trained paraprofessionals. Each child receives 11 minutes of math and/or 13 minutes of reading each day.

Preconditions to Implementation

Principal is supportive of (or at least neutral toward) adoption of CCC in the school.

A separate climate-controlled space containing CCC hardware and leased CCC software is available.

Paraprofessional(s) to staff the lab are hired and trained.

Teachers and principal receive initial training on CCC content and performance reports.

While hardware and software installation typically requires substantial planning, the mechanics of setting up the computer laboratory should not overshadow the necessary training of teachers in program content and in the value and use of student performance reports.

Roles of Key Staff

Principal arranges a convenient time schedule and school location, so students receive the CCC reinforcement and regular reading/language arts and math program.

Regular classroom teacher has sufficient ongoing familiarity with CCC curriculum and performance reports so that students receive appropriate and integrated instruction.

Instructional Methods and Curriculum

CCC is a self-contained supplemental curriculum, available in several different subject areas, as described above. It also provides extensive performance reports on each student. How well CCC is integrated into regular classroom instruction is a continuing implementation issue.

Resources

Among the additional resources needed are the following:

- CCC hardware (CCC is currently developing software that is other-hardware compatible) and leased software (called courseware).
- Approximately one full-time proctor or educational aide for every 20 or so terminals in the lab.
- Dedicated climate-controlled space for the computer terminals, paraprofessional(s) and students.
- Annual maintenance and software upgrade service contracts (in some cases, 20 percent of the original cost).
- Initial training for paraprofessional(s) to run the lab and refresher training when new courseware or upgrades are released, as well as initial training for the principal and regular classroom teachers.
- Some joint planning time or review time between the CCC lab paraprofessionals and regular classroom teachers to monitor student progress and assure that students receive appropriate instruction and reinforcement in the subject area.

Both districts visited have a full-time computer education coordinator whose responsibilities include oversight of the CCC program. In one school visited, coordination was enhanced because the regular classroom teachers accompany their students to the lab. Because no such coordination was evident in another school, we recommend some joint planning time.

Tutoring

METRA is a commercially available and highly structured tutoring system in reading, math, and English-as-a-second-language that combines one-on-one tutoring with companion instructional materials in a pullout setting. For 15 minutes a day, three days a week, paraprofessional aides lead students

through phonetic exercises in a guidebook. Twice a week for 15 minutes a session, tutors also work with children to improve their comprehension skills.

In classwide peer tutoring, each week first graders are assigned to teams and are paired within their teams. Students work on spelling and reading, taking turns as tutors and learners in 10-minute segments during the 30 minutes classes spend in classwide tutoring sessions. In the Chapter 1 replacement class, the paraprofessional aide and classroom teacher keep track of the number of correct answers within each pair and then for each team; daily and weekly recognition goes to the winning pairs and teams.

Preconditions to Implementation

METRA

Principal is supportive of (or at least neutral toward) adoption of METRA in the school.

Paraprofessionals are trained in how to use the METRA materials.

A separate room is available for the METRA aide, materials, and the student.

PEER TUTORING

Principal and teachers are supportive of the peer tutoring concept. (In the school visited, the program is a regular feature of all first grade classrooms.)

Teachers are trained in the grouping strategies and in tracking correct answers.

Neither METRA nor peer tutoring require extensive or time-consuming preparation prior to implementation.

Roles of Key Staff

METRA

Principal arranges a convenient time schedule and school location, so students receive the METRA reinforcement and regular reading/language arts and math program.

Regular classroom teacher has sufficient ongoing familiarity with METRA curriculum so students receive appropriate and integrated instruction.

PEER TUTORING

Regular classroom teachers (and tutor in the Chapter 1 replacement classroom) implement the structured peer tutoring program.

Resources

METRA

- Full-time paraprofessional aides; each aide serves approximately 25 students per day.
- Staff development for the paraprofessional aides. Training can be provided by district-level supervisors who have been trained by METRA professionals. No direct training of service providers by METRA is necessary.
- Modest initial investment in materials for the guidebook (*A Professional Guide for the Lay Tutor*) and for student workbooks.
- Another reading series appropriate for reading comprehension tutoring, such as *Top Shelf Literature*.
- Private space for the tutor, program materials, and student.

Peer Tutoring

- Staff development for regular classroom teachers and aide (in Chapter 1 classroom) in grouping strategies and scoring procedures.
- Modest investment in materials, including score cards and folders and textbooks already in use.
- Peer tutoring is a daily activity in each first grade class, so replaces 30 minutes of the reading/ language arts block.

Extended Time

The Chapter 1 Club meets daily for 30 minutes after school. Every two to three weeks a new book is selected that helps structure reading, writing, and project-based activities for that period of time. Children meet in the library where the librarian (head teacher) reads a book to all students from three grade levels and, with the help of aides, asks questions about the story. Words from the story are written on the board. The following day each grade meets separately with students writing about a topic related to the story. They use words from the previous day. Children spend four days on the writing component: two days of writing, one day rewriting and revising and one day creating a picture to illustrate their stories. During the second (and sometimes third) week, children work on a project related to the story (such as making flags after reading a story about Betsy Ross).

The summer migrant program is an eight-week summer school, with core academic subjects covered each morning. Three afternoons a week are spent on such specialty areas as art, music and computers. One afternoon is spent on swimming skills, and the remaining afternoon is used for educational field trips. Class size averages around 25 students; most classrooms have an aide as well as the regular classroom teacher.

Preconditions to Implementation

CHAPTER 1 CLUB

Principal is supportive of (or at least neutral toward) the after-school program.

Modest organizing time to select initial books and plan related projects.

Parental approval is required for children to participate after school.

No formal staff training is required.

SUMMER MIGRANT PROGRAM

Active recruitment of children from among migrant families is essential, including parental approval for children to participate.

Principal is seen as a very capable manager, committed to migrant education, and fully bilingual and bicultural.

Teaching staff is bilingual or is assisted by bilingual aides.

The Chapter 1 Club requires little upfront preparation beyond the commitment of the principal and teacher/aide staff. The summer migrant program, on the other hand, requires extensive recruitment efforts typically among non-English speakers. Because both strategies take place outside of the regular school day, parental consent is required. As discussed below, active involvement of families is a key feature of the summer migrant program.

Roles of Key Staff

CHAPTER 1 CLUB

A head teacher administers the program and selects books and materials in conjunction with the aides.

SUMMER MIGRANT PROGRAM

Principal is willing to reconfigure the school day to accommodate a summer program.

Teachers are supportive of the migrant program.

Outreach coordinators recruit families and students before the summer session, ride the buses during the summer program, and conduct home visits.

Parents participate through a Parent Advisory Committee.

In the Chapter 1 Club, the head teacher and aides select materials they consider most appropriate. Curriculum content need not be coordinated with that of the regular school day, although the program appears to run more smoothly when classroom teachers are fully informed (and preferably consulted) about book selection and activities.

Central to the operation of the summer migrant program is the commitment of the principal and faculty to including migrant families in the schooling experience as well as an empathetic understanding of the lives of migrant families. Coordination with the academic year curriculum was not necessary in this program, because very few children were enrolled during the regular school year.

Resources

Among the resources needed are the following:

Extended Day—Chapter 1 Club

- Full-time paraprofessional aides and full-time school librarian; each aide works with 10-12 children during the 30 minutes after school. The librarian has supervisory responsibilities.
- Modest investment is made in books and materials for related projects.
- Transportation schedules must accommodate the extended time for students.

Summer Migrant Program

- All costs associated with operating a school for 40 days during the summer (such as staff salaries, breakfast and lunch service and building maintenance).
- Salaries for two professional outreach coordinators (full-time for six months).
- Eight full-time teachers and eight full-time aides for the 40-day session, as well as full-time principal and full-time school clerk.
- Modest investment in books and materials. (Current year books are typically used.)
- Travel budget and related expenses for weekly field trips.

The summer migrant program also entails hidden costs of extensive volunteer time that principals, teachers, other school personnel, and parents devote to making the program successful. The district and state have been particularly supportive by providing other in-kind resources as well.

Issues in implementing the strategies share common features. Schools need to have a welcoming attitude toward change and be managed well; principals and teachers share a commitment to the utility of the strategy in their own setting; staff are experienced and trained in the content and implementation of the strategy; the strategy is coordinated with the regular school program (if the strategy is separate); and some additional resources (including donated time) are forthcoming. The specifics of implementation vary with the intensity and magnitude of the strategy as well as with its specific curriculum content.

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Appendix

Forms for Writing Topics A and B, Scoring Guides, and Writing Samples

Favorite Story
W000410
Age Class: 2, 3
Informative - Analysis

SCORING GUIDE

Primary Trait: Substantiation of evaluation through analysis.

Scoring Rationale: The task asks the respondents to tell why they like a favorite story; thus, they should explain their reasons or criteria for liking that story. Plot summary can be viewed as minimal support for certain criteria; however, the best papers should consider such aspects as setting, plot development, characters, meaning, believability.

0: No response.

1: Unsatisfactory analysis. Some of these responses identify a favorite story, but give only circular reasons for liking it, such as "I liked it because it was good." Or their reasons may be broad, sweeping generalizations or personal assertions that could apply to almost any story. (It was...exciting, interesting...or it had a good plot.) Or they may indicate that they do not have a favorite story or otherwise avoid the analytic task.

2: Minimal analysis: These papers summarize or discuss the story and/or they may show some evidence of beginning the analytic task by giving one or more brief criteria for liking the story. They fail, however, to develop any of the reasons and just list them.

3: Adequate analysis. These responses may summarize or discuss the story but they must give at least one criterion or generalization elaborated with some evidence or support. They may be uneven or unbalanced, with some parts handled well and others not so well.

4: Elaborated analysis. These papers present a cohesive, elaborated analysis of the features of the story and reason(s) for liking it. These papers offer either an extended, unified elaboration of one criterion or generalization or an interrelated list of moderately elaborated criteria or generalizations.

9: Illegible, totally off-task, or "I don't know."

Note: These are some of the strategies for supporting reasons for an evaluation:

- o bringing in personal experience
- o mentioning personal preference or taste
- o giving evidence or examples from the story being evaluated
- o emphasizing the uniqueness of the story
- o expressing personal engagement or identification

(Topic A) 27

NAME _____ Birthdate_____

English Teacher_____

In this section, you will be asked to write a story. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You can use the back sheet of this paper

1. Think about a favorite story that you have read or heard in school. Write about the story, identifying it and telling why you like it and what it means to you.

TV Habits
W000510
Age Class: 2, 3
Informative - Analysis

SCORING GUIDE

Primary Trait: Explanation through analysis.

Scoring Rationale: Respondents are asked to describe their television viewing habits by explaining the kinds of programs they watch, why they watch them, and the amount of time spent watching them. Better papers are integrated explanations of viewing habits.

0: No response.

1: Unsatisfactory analysis. Respondents may describe specific programs that they watch with or without reasons for watching them. Or they may identify the kinds of programs they watch without giving any reasons for their selection or by giving circular reasons or without commenting on the amount of time spent watching them. Or they may use the prompt for personal digressions or otherwise avoid the task.

2: Minimal analysis. Respondents describe at least one kind of program that they watch and give at least one reason for watching; however, they do not indicate the amount of time spent watching them. Or respondents may give one or two brief reasons for not watching television. Or these papers describe the types of programs they watch and talk about the amount of time watching them, but do not give any reasons for their viewing habits.

3: Satisfactory analysis. Respondents describe at least one kind, of program that they watch, give at least one reason for watch that kind of program, and talk about the amount of time spent watching. Or if they do not watch television, they elaborate on at least on reason for not watching or list their reasons for not watching. Or they present reasons for watching certain shows as well as reasons for not watching much television in general; however, they still must give a sense of the amount of time spent watching.

4: Elaborated analysis. Respondents integrate the descriptions of the kinds of programs they watch, their reasons for watching them, and the estimated amount of time spent watching them into a cohesive, elaborated explanation of their viewing habits. Or if they explain that they do not watch television, they must offer an extended, unified explanation of why they do not watch it.

8: Unable to do: does not watch television.

Illegible, totally off-task, or "I don't know."

(Topic B):

NAME _____ Birthdate_____

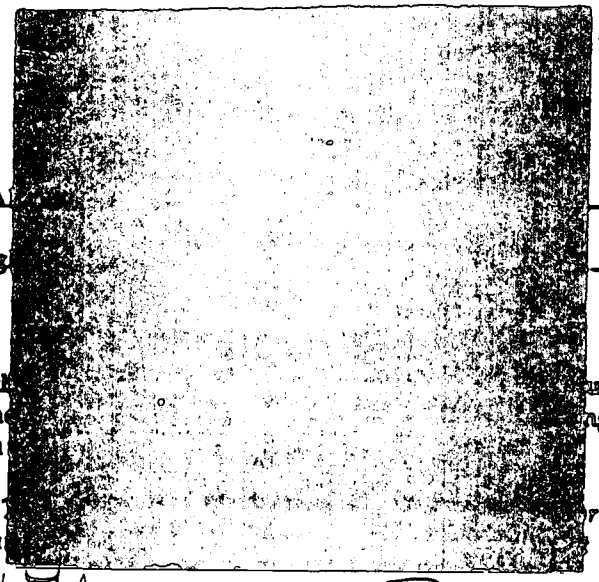
English Teacher_____

In this part you are asked to write a report. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You may use the back sheet of this paper.

2. *As a way of finding out more about how people watch television, the students in your English class are undertaking a study of their own television habits.*

In a brief report for your English class, describe your own television viewing habits. Describe the types of programs (comedies, soap operas, sports, etc.) you watch most, tell why you select these kinds of programs, and estimate the amount of time you spend watching them. Give your class a clear idea about the place television has in your life.

304 9012



NA[redacted] Birthdate 12/27/75

Eng[redacted] (10)

(2) Summary

In th[redacted]u will have 15 minutes to write. When you are
done [redacted]nges that you think will make your paper better.
You [redacted]

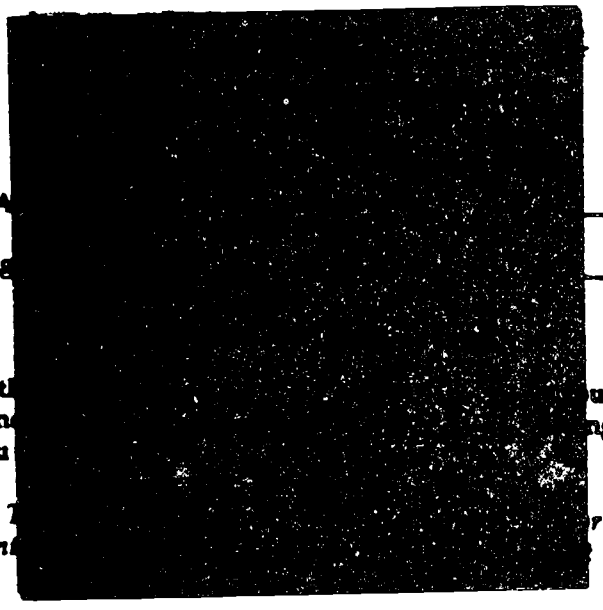
1. T[redacted]r heard in school. Write about the story,
iden[redacted] means to you.

"The Stone Boy"

The story starts off as any regular day with two brothers. One about 9, the other 10. Arnold (9), (one 10) get up early every morning to go pick peas before the sun dried them out. Arnold brought the gun along just in case they were lucky enough to shoot a duck. When they got to the pond, there was a barbwire fence. Eugene went ahead and went across it and opened the fence for Arnold to get through. As Arnold went through the fence the gun trigger got caught on the wire-

NAMI _____) Page_____

word and it fired. A piercing bullet lodged into Eugenes' Chest. Arnold did know what to do, Eugene was dead. After that Arnold went ahead a picked peas. We he filled the bucket like he was supposed to, Arnold went back to the house.



9051

150 A 66

NA _____ Birthdate 3-11-76 (1)

Eng _____

In t u will have 15 minutes to write. When you are
don nges that you think will make your paper better.
You

1. r heard in school. Write about the story,
iden means to you.

I Do not have A book that I have read IN forever. The only books that I have read IN 4 years is books on trains, SUPERNatural, CARS, & Special effects making.

170A67

304 9077

(3)

Birthdate 10/2/76

(10)

summary + pono analysis

In this section, you will be asked to write a story. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You can use the back sheet of this paper

1. Think about a favorite story that you have read or heard in school. Write about the story, identifying it and telling why you like it and what it means to you.

I read the Pearl. It is about a poor indian family that needs a doctor because their baby got stuck by a scorpion. Even though the baby may die, the doctor did nothing to help the family, except ask Kino anyway. So, Kino (Father) finds a huge pearl and goes around to everyone. The doctor then goes around telling everyone that Kino was a patient of his. I really do like the story because it is true about today's world. People won't do anything for you unless you have money. But if some-thing happens that you ask for help they'll come running back to you, just like in the Pearl. The doctor runs back to the indian family.

94032

(4) Analysis / whole essay

NAME [redacted] Birthdate 7/6/76

English Teacher [redacted]

In this section, you will be asked to write a story. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You can use the back sheet of this paper

1. Think about a favorite story that you have read or heard in school. Write about the story, identifying it and telling why you like it and what it means to you.

The book I will be discussing is a famous book written by Dr. Seuss titled, Green Eggs and Ham. This used to be my favorite book when I was a young child. It was read to me just about everyday to help me go to sleep. It was a very soothing and relaxing book, but with a touch of humor. I liked the way the words all rhymed in every other line. This made the book very simple to read. It was probably the first book I enjoyed to read as a child.

Dr. Seuss wrote many great books in his lifetime. Most of his books encouraged children to learn to read. I know it made me want to read. The way he talked about the easiest things and made a fantastic story out of it was unbelievable. I owe much gratitude to Dr. Seuss for writing books that made me laugh and help me sleep, but most of all he encouraged me to learn how to read. I was really sad when I heard about his death. I didn't realize how important his books were to me until I reflected back to my childhood days reading his books. In my opinion Dr. Seuss is the best book writer for young children.

346 B69

205-331-5020

(2)

NAME [redacted] Birthdate_____

English Teacher_____

In this part you are asked to write a report. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You may use the back sheet of this paper.

2. *As a way of finding out more about how people watch television, the students in your English class are undertaking a study of their own television habits.*

In a brief report for your English class, describe your own television viewing habits. Describe the types of programs (comedies, soap operas, sports, etc.) you watch most, tell why you select these kinds of programs, and estimate the amount of time you spend watching them. Give your class a clear idea about the place television has in your life.

no time details

I dont watch television that much but when I do. I watch NFL Football or Comedy show like living color and different show like this one. That about All I watch All week. I like these programs because There funny and you dont have to be there watching all day. I like Football because of hardhitting and Active during the hole game. TV does not have A big part in my Life because I offen watch it.

reason

reason

520 6

NAME [redacted] Birthdate 8·3·75

English Teacher [redacted]

In this part you are asked to write a report. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You may use the back sheet of this paper.

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3

focus + tone

TV is a very important part in my life. I guess I like comedies, sports I used to like soap operas but since my mom got on that thing of it's a bad influence on you to watch it I don't get to see many I guess I watch comedies most I watch them because they are funny and uplifting I guess I watch an average of 5 hrs of TV through the week if that, but I watch alot more on the weekends when I'm not with my friends comedies also have a way of making you wants up after a long hard day at school or at the office.

205-301-0005

NAME [redacted] Birthdate_____

English Teacher_____

In this part you are asked to write a report. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You may use the back sheet of this paper.

2. *As a way of finding out more about how people watch television, the students in your English class are undertaking a study of their own television habits.*

In a brief report for your English class, describe your own television viewing habits. Describe the types of programs (comedies, soap operas, sports, etc.) you watch most, tell why you select these kinds of programs, and estimate the amount of time you spend watching them. Give your class a clear idea about the place television has in your life.

May tv viewing habits are as follows. I watch CNN on sunday with my dad although I don't watch much t.v. I do watch a lot of movies on t.v. if its the same thing.

(1)

Marie
Limited response

33, 72

205-331-0011

(2) no fun reasons

NAME [redacted] Birthdate________

English Teacher________

In this part you are asked to write a report. You will have 15 minutes to write. When you are done, look over your paper. Be sure to make any changes that you think will make your paper better. You may use the back sheet of this paper.

2. *As a way of finding out more about how people watch television, the students in your English class are undertaking a study of their own television habits.*

In a brief report for your English class, describe your own television viewing habits. Describe the types of programs (comedies, soap operas, sports, etc.) you watch most, tell why you select these kinds of programs, and estimate the amount of time you spend watching them. Give your class a clear idea about the place television has in your life.

Television is a great deal in part of my life. It teaches you somethings, helps you to understand more and in some cases shows you some differences in life. I love to watch soap operas because some of their situations, people in real life are dealing with. I watch All My Children whenever I can. It's my favorite soap opera show. They've delt with a lot of things in that show. Another shows I was are Night Court, Golden Girls, Oprah, Sally, Donahue, Married with children and especially Beverly Hills 90210. Beverely Hills 90210 is a great show for all teenagers to watch. They deal with problems of today. For example problems at home, problems with drugs, problems with friends and others. They also go

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NAME [redacted] Page 2

about fixing the problems, carefully, understanding, confrontive and truthfully. You learn a lot from that show. It's also educational.

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