Non-Profit Organization
U.S. Postage Paid
Permit No. 122 – Eugene, OR

ADI NEWS

Volume 6, Number 4 Association for Direct Instruction, P.O. Box 10252, Eugene, Oregon 97440 Summer, 1987

Combining Categorical Services *Does* Make A Difference

by Forest Hertlein
Mukilteo School District
Everett, Washington

The Mukilteo School District in Everett, Washington has initiated a plan to combine categorical programs in an effort to improve services to low performing students. The Mukilteo Learning Support System (MLSS), initiated in 1982, was established on the belief that student learning needs, rather than eligibility categories, are the important bases of effective program design and delivery. Although Federal and State statutes for various programs such as Chapter I and special education (P.L.94-142) are intended to provide services to different student populations, the significant overlap in student characteristics and needs demands a coordinated approach. Another major goal of program coordination is to increase communication between categorical and regular classroom students.

Eliminating Categorical Separateness

The first step in combining services is eliminating or diminishing administrative and programmatic separateness of categorical programs. Initially, this effort was facilitated in Mukilteo at the district level by placing all categorical programs under the responsibility of one administrator who was committed to program coordination. Some argue that one of the barriers to coordination is that district administrators continue to treat Federal and State categorical programs as foreign entities that must be administered separately from the basic program and from one another. The tendency by such administration is to fragment responsibilities for instructional planning among several program coordinators who select their program designs because they seem safer hedges against compliance issues and audits. By placing categorical administrative responsibility under one administrator, a range of cross-supervisory roadblocks are significantly reduced.

At each building in the Mukilteo School District, Chapter 1, ESL, remedial, and special education resource room programs are consolidated into a Learning Support Center (LSC). The LSC is staffed by one certificated teacher and a number of instructional aides. When the school year begins, all students are assigned to regular classrooms and students in greatest need of learning support are identified through curriculum based assessments. Typically, students in greatest need are those who function more than one year below grade level and who cannot be accommodated in the regular classroom. Further curriculum testing is completed by LSC staff to form appropriate placement in LSC groups. Therefore, it is common to find special education, Chapter 1, remedial and bilingual students receiving basic skill instruction in the same instructional group. A common referral system is used with emphasis placed upon identifying skills the student has and has not mastered. Categorical funding labels are considered only with respect to the administration of the system in areas such as program funding, eligibility, and accountability.

Increasing Curriculum and Instruction Coordination

Operating categorical program in a separate manner often exposes students to different, and sometimes competing, instructional materials and practices. Chapter 1 reading materials and instruction may differ from remedial reading which may differ from regular reading. To provide curricular continuity and rigor, the MLSS adopted Direct Instruction materials and techniques as the primary instructional approach. The use of structured and highly sequential materials such as *Reading Mastery, Spelling Mastery, Corrective Reading, Distar Language, Corrective Math,* and *Mastering Fractions* allows instruction to be carried out by non-certificated staff who are trained and supervised by the LSC teacher. Utilization of aides in this manner provides a coordinated and structured curriculum throughout the system. Time spent by LSC teachers in training and supervising aides in curricular and instructional methods is an on-going and essential component to the program's success.

It is the Learning Support Teacher's responsibility to monitor student progress and to adjust groups accordingly. This assures that students are receiving instruction at the appropriate level of difficulty. The LSC teacher also assures that students are "phased" back into regular curricular materials prior to exiting the LSC. This is accomplished by applying Direct Instruction methods such as pre-teaching, model-lead-test, and mastery learning to district adopted curricula. Therefore, the MLSS is effectively linked and designed to support the learning activities and materials of the regular classroom. In this manner a coordinated service model fosters a team approach in which regular and categorical staff members share responsibility for providing services to students.

Continued on Page 7

Teaching Handicapped Preschoolers with DI

by Georgia Layton
Director, ADI Preschool

In 1981, the Early Education Program came into existence to test the applicability of Direct Instruction principles and practices with handicapped preschool-age children. We are presently serving 65 severely, moderately, and mildly handicapped three to five-year olds in Lane County, Oregon. This article overviews our program.

Like other programs with a commitment to Direct Instruction, ours has as its underlying rule, "Teach more in less time" (Becker, 1986). With this rule comes a responsibility to: (1) choose functional instructional objectives with both economy and power (Bruner, 1966), (2) engage in efficient and effective teaching practices, and (3) adopt procedures that allow us to reduce wasted time and increase the time children are engaged in relevant instruction. What follows is a description of our efforts in each of these areas.

Instructional Objectives

Over the past six years, we have realized that unfortunately none of the commercially available DI programs (even the newly revised *Distar Language I*) can be used with our students without great adaptation. This is certainly no criticism of these programs, but rather an acknowledgement that the goals and instructional detail in them do not often meet the needs of our younger, more severely handicapped learners. It has become increasing clear that we must generate our own instructional goals, and that these must help our children maximally succeed not only in school but at home and in the community as well. To this we add an interest in economy and power, that is teaching the fewest number of objectives needed to achieve the greatest generality of application. Table 1 presents our instructional content in the cognitive and motor areas (see page 4).

The great majority of our time in the classroom is spent teaching important cognitive concepts and operations. Possibly our most important goal is to provide our children with an understanding of the basic sensory concepts that surround them. We spend much instructional time teaching our children regular noun concepts like *book, apple* and *nose*; classification nouns like *clothes* and *colors*; descriptors like *sneezing, over, happy, shoes, them, before, loud,* and *round* and words frequently used in instruction like *yes* and *no, not* and *same*. We are also interested in teaching our children a myriad of functional ways to demonstrate their newly acquired vocabulary (i.e., cognitive operations). We focus on making kids "smart" in a variety of contexts by teaching them among other things to communicate their needs in increasingly sophisticated ways (requesting), answer a host of questions about objects/events (answers questions) and sequence events in time.

We attempt to include basic cognitive concepts and operations that are functional for children in that they promote success in the child's present and future home, school, and community environments. Noun concepts like *ball, chair, sandwich* and *toy* and descriptive concepts like *hot, sleeping, in,* and *mine* are likely to be needed in many present and future contexts, and are taught early-on in our curriculum. Operations like *requesting, following directions, using objects functionally,* and *engaging in conversation* are similarly included because of their importance in a host of real-life routines.

Our interest in economy and power leads us to select goals strategically. We are particularly apt to choose goals (component skills) that we can combine and use in a variety of contexts. Our basic concepts are particularly well-suited for this purpose. Once a child has a core repertoire of these basic concepts, they are combined and used in some of our many programs to teach cognitive operations. For example, after our children are taught to identify a select set of common objects like *shoe, ball* and *car*, these same objects are then used to teach a variety of more complex skills like *touching pictured objects, sorting and matching objects, naming touched objects, requesting desired objects*, and the like. These operations are then combined with others and included in a variety of more "natural" contexts. In this way, a minimum number of basic concepts are combined and recombined to provide maximum generality of application.

Our interest in functional and "recombinative" skills (Alessi, 1987) extends to the motor domain as well. Motor goals relevant to school (e.g., sitting, writing, cutting), leisure time (e.g., climbing, building, swinging) and self-help routines (e.g., washing, unbuttoning, drinking) are focussed upon. A host of basic fine motor, gross motor and verbal responses important to a variety of contexts are shaped from day 1. These are later combined in more complex chains and are ultimately required in naturally occurring settings.

Our ultimate responsibility is to see to it that our children achieve and succeed in those naturally occurring life activities.

Continued on Page 4

Dear Readers:

I am sorry for the delay in putting together this issue of the *ADI News*. In June when we normally put together the Summer issue there were just not enough articles on hand. When by late July the material was ready, we were into the workshop season in Eugene, Salt Lake City, and Newport Beach. To deal with this problem and to catch up, we will put out two 12 page issues (Vol. 6, No 4 and Vol. 7, No. 1).

What we need more than anything else are more contributors to describe what they have learned in teaching, supervising, and program evaluation related to D.I. Send articles to Dr. Wes Becker, ADI News, P.O. Box 10252, Eugene, OR, 97440.

Wes Becker, Editor

Dear Editor,

I want to thank you very much for the article regarding the achievement gains in Algebra classes, etc. (*ADI News*, Spring 1987, Vol. 6, No. 3).

As I read it, I came across the portion on the case study. I got goose-bumps reading my own quoted words. What a compliment. Thank you so much.. and yes! you may certainly use my name in your future articles.

You've made my job seem significant again– a rare feeling for those of us who are striving so hard to reach those "hard to reach students."

I know this is avery informal note but I am unable to obtain letterhead from San Diego High School because we are out of school. Yeah!

Good luck to you and all the others involved in your project and future projects.

Karin Crow Lalka

P.S. Thanks again for the grand compliment in the writing of this paper of yours.

Educational Guidelines—

Who is Kidding Whom?

by Zig Engelmann
University of Oregon

The more you know about what is possible in the schools, the more intolerant you become with current school practices. The schools (and the traditional institutions that are associated with schools, such as teacher-training institutions) are primitive and are failing. But they don't act as if they are failing. They don't use data-based procedures for finding out where and how they are failing. And, they certainly don't follow intelligent techniques for solving their problems. They use medical-model labels like "dyslexia" to suggest that the child is sick and problemed for not learning to read from teaching presentations that can account for all the misconceptions the child has. The schools use testing procedures that are supposed to tell about the "aptitude" of the students. Yet they fail to test for specific skill deficiencies in language that would imply what a teacher should do to remedy the problem. And, the schools provide "in-service" programs that are often the other side of ludicrous, if we expect the teachers to come from the session with skills that will make them more effective in the classroom.

But probably the most presumptuous and unproductive practice of the schools is their formulation of "Guidelines." Here's why their "guidelines" head the list of unenlightened practices:

The schools (and when I refer to schools, I mean the typical school, not the striking exception) are failing. In many districts, as many as one-third of the children leaving the first grade are seriously behind in reading skills. According to the National Assessment of Academic Progress, the average 7th grader cannot add simple fractions that have unlike denominators, like 1/3 and 1/2. Anyone who has ever observed the performance of typical, middle-class, intelligent students in 5th grade science or in 9th grade biology knows that these students have serious deficiencies in critical reasoning, logical inference, and knowledge.

I don't think we would have very much trouble documenting the fact that the average school or the average school district is doing a poor job of instructing kids— compared both to what is possible and to what was achieved 30 years ago. B.F. Skinner in a recent article called it "The Shame of American Education" (Skinner, 1984).

How do the schools respond to their failure? They make up *guidelines*. These guidelines tell how particular skills should be taught. They express both the objectives and the grade levels at which instruction is to happen. They describe the format of instruction. Sure, agencies other than schools or school districts play this game. States have "textbook" commissions and adoption procedures. These are governed by "guidelines." Even states that don't have such commissions have "guidelines."

Obviously, guidelines are important, and I'm not arguing against them. But guidelines are supposed to protect, and one wonders, who is being protected by the guidelines? Or, as the title of this article asks, "Who is kidding whom?" Consider the joke: The school districts don't know how to teach a skill (evidenced by data showing that their average student doesn't learn the skill "on schedule"). So the school districts make up guidelines that tell how the skill should be taught and how it should be scheduled. The guidelines now function as self-fulfilling prophecies and guarantee that the skill will never be taught effectively. Only the unintelligent, or the naive, would teach it the way the guidelines DEMAND it to be taught. Think of the presumption. They don't know how to teach it, but they insist that it is taught their way. If we were to follow the typical sequence outlined by the typical school district (or by the International Reading Association) for teaching reading comprehension, we will be guaranteed of failing with a large percentage of students who could easily learn the skills if an appropriate program and format of instruction were used.

The same is true of arithmetic. The National Council of Teachers of Arithmetic has, historically, promulgated techniques that will guarantee failure in math. Many of the districts that have incorporated these guidelines into their guidelines are the ones with the most serious problems in student performance.

The saddest part of this situation is that those who are on the committees, and those who make the decisions about "guidelines" have typically never seen classes where all students are taught and learn. So, they have no knowledge of the facts that are relevant to constructing intelligent guidelines—how many examples it takes, what kind of examples, what type of schedule, what type of integration with other activities.

That's the problem. What's a solution? Begin by using data-based procedures for establishing guidelines and for program selection. What that means is this:

1. Don't adopt any guidelines from anybody who has not demonstrated the ability to teach the skill in question and teach it *uniformly*—so that virtually all students who qualify for being taught the skill master it in the predicted time. A good procedure would be for the school, district, or association to pay the advocate or author of a procedure (or program) to put on a demonstration with a selected sample of students. In that way, it would be relatively easy to evaluate whether the program works, which is the most important question.

If the program passes the test of working, the district can move to step 2, if it fails, throw it out (along with the consultant or advocate). After all, the district doesn't really need another program that doesn't work.

2. If the program does work, the district must next find out whether or not teachers can be uniformly trained to teach the program and if so, what kind of training is needed. Again, it would be much more sensible for the district or agency to have a program advocate demonstrate the training requirements. (This alternative is a lot better than the district trying to interpret "school effectiveness" research and making up their own training schedules. It is quite possible that the teachers could fail after district training, whereas training of a different format could succeed.

It is possible that a program can work well with the students, but still be very difficult for teachers to use. This is information the district needs. If the teachers can be trained within a reasonable period of time, we can move to step 3.

3. Next, the district should make provisions for implementation and monitoring. The purpose of this step would be to guarantee that the details necessary for implementation are attended to. Teachers should clearly understand what their assignments are. They should receive training necessary to achieve the minimum level of proficiency in teaching the program, and they should be monitored to guarantee that: (a) they follow the schedule that is adequate, and (b) follow the program. This step may seem very obvious to anybody who is used to "production" work of any kind. You have to make sure that the job is being done on schedule and being done according to specs. In education, unfortunately, procedures are often put in motion by what we might call a "philosophy drive." For instance, a group of teachers *says* that they are using *Reading Mastery*. The outcomes the students achieve are automatically ascribed to *Reading Mastery*. Nobody is concerned with whether *Reading Mastery* was actually taught and whether the report is simply a verbal label that has nothing to do with the practices observed in the classroom.

4. The district establishes guidelines that are based on the specifications of the program they have implemented. They retain these guidelines until they receive a demonstration that there's a better way. To prevent their current "guidelines from preempting further development or the possible adoption of programs that are better than the current ones, the district must keep the welcome mat out for anybody who has *data* that there is a program capable of beating the current program: (a) with respect to student performance, (b) economy, (c) teacher training. If somebody has such data and if the data do not look suspect (which means test scores on a standardized test that doesn't adequately measure the skills that are being taught), give them a chance to show what they could do.

This 4-step solution could save school

Continued on Page 3

The **Direct Instruction News** is published Fall, Winter, Spring and Summer, and is distributed by mail to members of the Association for Direct Instruction. Membership and subscription information may be found on the last page of this newsletter. Readers are invited to submit articles for publication relating to DI. Send contributions to: The Association for Direct Instruction, P.O. Box 10252, Eugene, Oregon, 97440.

Changing Reading Programs:

North Thurston's Gradual Move Toward *Reading Mastery*

by John Woodward
University of Oregon

The North Thurston School District is a medium-sized district just south of Tacoma, Washington. With approximately 10,000 students, it is in one of the fastest growing counties in the state. North Thurston has a diverse social and economic makeup, and for a district of its size, it has a typical share of transient and low income students. Yet what has concerned teachers and administrators the most over the last five years has been the increasing number of low achieving and "at risk" students in its ten elementary schools. Consistent low performance in the area of reading, especially as students move from kindergarten to first and second grade, has prompted the district to re-evaluate its elementary reading program.

North Thurston believes that reading is a program, not a book nor an odd assortment of texts. According to Jim Rydland, Curriculum Director for the district, what they want to achieve, "is a well-defined, student oriented system and *not* a fragmented combination of different reading programs." Reading is at the center of their elementary education program, and the district recognizes that reading problems which begin in the early years only get worse. They are costly to district in terms of staffing and additional curricula, and most importantly, they are costly to students. Rather than wait for children to exhibit serious deficiencies by the end of third grade or when they encounter content area texts in the intermediate grades, the district is committed to a preventative reading program.

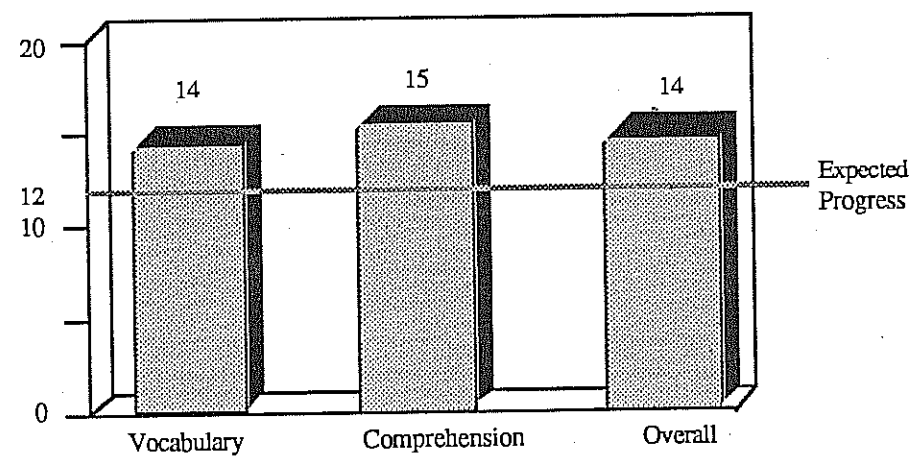
Through gradual change and a series of incentives, North Thurston is making direct instruction and SRA's *Reading Mastery Programs* a prominent feature of their elementary curriculum. The district was impressed with the data from Project Follow Through, which not only showed that the direct instruction programs were responsible for dramatic gains in student performance in the areas of reading, math, and language, but that the effects had a lasting impact on student achievement. These data, and key personnel at several of North Thurston's elementary schools, led the district to formally support *Reading Mastery* as an established part of its regular reading program three years ago.

Reaching the Low Achieving Student – A Flexible Use Of Resources

Direct instruction programs have been a part of the district curriculum for over twelve years. At first, only special education teachers used *Distar Reading I, II, III*, and the later, expanded and revised *Reading Mastery Programs*. As many of these teachers moved to regular education assignments, they began to use these programs with the lower achieving students in their classes. Others teachers were influenced by the changes they saw in special education students as a result of the direct instruction programs. A good example of this is what happened at South Bay Elementary.

Several years ago, a fourth grade teacher became interested in *Reading Mastery* when she saw the effects of the program on her special education students. Student progress in many areas of reading, not just decoding or vocabulary, was impressive. Working with Shirley Lehnis, the resource teacher, she began using the program during the 1984-85 school year. Her continued excitement about the program led a third grade teacher to use *Reading Mastery* the following year. Last year, at least one teacher from kindergarten to fifth grade was using *Reading Mastery*. Now, at South Bay and other elementary schools, *Reading Mastery* is being used with those students who are academically in the lower third of their grade level.

Figure 1. CTBS Months, Spring 1984 to Spring 1985 (N =14)



All of this is accomplished by a district policy of block reading at each elementary grade level. Every second grade student, for example, is placed into one of three groups at the beginning of the year. Placement is contingent upon test scores and daily performance in Ginn, the district's predominant reading program. By ability grouping, teachers are better able to meet the needs of their *group* of students. Once students in the entire grade level are grouped, reading instruction occurs at the same time each day. Rydland conceives that the overriding purpose of the block reading program is to match "the right kid with the right teacher." In some schools, those students in the lowest group receive further assistance from the school's Remedial or Basic Skills Teacher as well as the Resource Room Teacher. Both work in the regular classroom during block reading and, if necessary, reinforce reading skills at a later time in the day.

North Thurston has only begun to document the success of *Reading Mastery* with the lower achieving third of its students. However, the progress of 14 fourth grade students at South Bay Elementary School during the 1984 - 1985 school year is one index of *Reading Mastery's* effectiveness. Figure 1 shows their progress on the CTBS over a one year period. Average gain in each area of reading was not only above the 12 month expected progress for students in reading (i.e., one year's progress), but it was more than twice the average progress these same students made in the third grade when they were reading from the Ginn 720 program. Progress like this has only reinforced what many teachers and administrators in the district have known all along: the program has a broad impact across reading skills.

District Level Training: Creating Expertise at the Building Level

To maintain a high level of support for the direct instruction reading programs, the district has followed a policy of voluntary participation. No teacher has been told that they must use *Reading Mastery*, and interestingly enough, the district has had no problem finding teachers who want to use the reading series. In fact, the opposite is more of a problem. There are several elementary teachers who would rather use *Reading Mastery*, but must use Ginn.

Insuring that *Reading Mastery* will be successful, the district has realized that it must go beyond the skills of its few, well-trained direct instruction teachers. To this end, North Thurston has begun a detailed and ongoing inservice program. This entails support for both outside training through workshops such as the annual Direct Instruction Conference in Eugene, Oregon; training within the district by SRA consultants; and more recently, district personnel.

The district uses SRA consultants for special programs or to keep all of its teachers abreast of new direct instruction techniques. However, on an ongoing basis, the predominant inservice strategy is to use personnel within the district for training. Not only is this more cost effective in the long run, but it allows trainers to focus on the unique needs of their teachers. Throughout the year teachers are able to meet, receive specific training on a *Reading Mastery* program, and discuss problems that are relevant to a particular school or grade level. Furthermore, as more teachers are trained, they can be evenly placed throughout the district. Those who exhibit the highest skills receive even more training and are asked to become building level experts or facilitators.

The building level expert is an important element in North Thurston's staff development program. Wherever possible, the district would like to have one well-trained direct instruction teacher in every elementary school as an instructional leader. Ideally, this role would be filled by the principal and in certain instances, such as Carol O'Connell at Olympic View Elementary,

Continued on Page 4

Guidelines — *Continued from Page 2*

districts hundreds of millions of dollars, could remedy some of the metaphysical problems that currently get in the way of intelligent instruction, and would provide schools with programs and procedures that *work*.

Oh yes, it would also benefit the students enormously.

You can get an idea of how much money it would save if you consider the following: School districts that adopt "philosophy drive" programs—those that have a cute ring to them and imply that the teachers know how to make the right decisions about teaching—will fail. For instance, a few years ago a large district in California used "school effectiveness" information to provide inservice, program adaptations of the district reading program (Ginn), and an ongoing monitoring and support system. The cost of the program was staggering—millions of dollars just for reproducing supplemental worksheet material. By the time the program was implemented, the district had gone way over budget. Teachers who had never seen the skills effectively taught, who had never taught them themselves, and who were certainly naive in the principles and intricacies of instructional design, created this project. It failed.

To spend a few bucks finding out what does work and then implementing those programs is not only to save time, but money. It is the most cost efficient thing the district could do.

A related point is that when the programs are known to work and known to be "teachable," it is much easier for the district to identify training problems and provide solutions. For instance, not long ago, a district supervisor showed me a "report" provided by a teacher who had been given the assignment of "evaluating" one of the videodisc math programs that we had developed. After reading a paragraph of the report, I told the supervisor that the report didn't tell much about the program, but told a great deal about the author of the report. The author referred to problems of motivation, problems of students doing their "homework," problems of copying problems onto another sheet of paper. The REAL problems were that the teacher had serious management problems, talked too much, and did not follow the program as specified. When I told this to the supervisor, he shook his head, smiled, and said, "Well, that certainly does describe him."

My proposal is very simple: Demand that anybody making up guidelines has firsthand knowledge of how to teach it to all students in a class, and has firsthand knowledge that teachers can uniformly be trained in the program and procedures. These steps make guidelines worth following, not detours into instructional potholes.

Reference

Skinner, B.F. The Shame of American Education. American Psychologist, Sept., 1984, 947-954.

Teaching Handicapped Preschoolers with DI —

These activities or routines may be primarily educational in function (e.g., small group teaching activities, large group activities, independent seat work etc.), recreational (e.g., structured play activities, free play, etc.) or concerned primarily with self-management (e.g., arrival to school routines, mealtimes, dressing, toileting, etc.). We focus on teaching a set of generic skills common to all routines which include not only the core skills needed but those which allow the child to perform independently (e.g., initiating the routine appropriately, problem solving as necessary) and those which enhance the routine (e.g., communicating needs, socializing). These are more comprehensively described by Fredda Brown (1987).

Teaching children to engage in complex routines depends to a great extent on our success in teaching the many cognitive and motor skills listed above that are components of these routines. When component skills have been taught generatively, with an eye to applying them in the many activities in which they naturally occur, we best prepare our children to succeed in those routines.

Free play provides an example. In our free-play activities at school, we want our children to: (1) go to the play area when directed, (2) get toys from off the shelf/ask for those that are out of reach, (3) play appropriately, (4) defend ones own toys, (5) talk frequently and intelligably with adults/peers, (6) put toys away, and (7) leave when asked. Much instruction on the components skills for this activity occurs outside of the free play area using "general case strategies" to promote their generalization. (These strategies will be discussed later in the section called "Instructional Design.") During small group instruction, for example, the children may be taught: (1) "conditional" (if-then) directions which are necessary if the teacher says "When your things are put away, you can go play", (2) to request using the desired object's name such that they can do so when they want toys that are out of reach, (3) a host of relevant fine-motor manipulations and rules about playing with objects which allow them to engage appropriately with those that are available, and (4) to name a variety of basic cognitive concepts like *eating, in,* and *hot* which the child can then talk about with other children and adults while playing in the area. In this way, we are able to provide critical practice on relevant component skills such that they can be easily incorporated in naturally occurring routines.

In our classrooms, we teach a variety of cognitive concepts, motor skills, and complex routines . These are functional in that they allow our children to best succeed in present and future school, recreational and self management activities. Those that require a minimum amount of instruction with the greatest generalized application are our highest priority. The procedures we use to teach them are further described in the next section.

Issues of Instructional Design

The heart of Direct Instruction lies in the specific program details of how to best teach the task whether cognitive, motor, or a chain involving both cognitive and motor responses. DI focuses on teaching the "general case," so that skills initially taught in small instructional groups also occur in a myriad of ways in the environments they should. Without ready-made DI Programs, but armed with relevant Direct Instruction principles (Engelmann & Carnine, 1982; Becker, 1986), a particularly helpful manuscript called *Direct Instruction for Severely Handicapped Learners* (Engelmann & Colvin, 1986), and a strong background in *Distar Language I* (Engelmann & Osborn, 1987), we have begun to develop our own teaching programs which include initial teaching sequences and expansion tasks – a process which is both arduous and exciting. I will next describe how we have done this for one, very tiny program objective, a new cognitive concept, "pitcher."

Teaching the concept, "pitcher" is begun only well after a core of basic cognitive concepts has been taught. As quickly as we can, we introduce our children to a set of common objects, people and places. Throughout the year, new such concepts are added. We add *pitcher* when the category *containers* and examples of containers like *basket, pot,* and *bowl* are introduced, which is well into the year. We make sure that *pitcher* is well separated from other concepts with which it shares characteristics either in appearance or name. That is, *pitcher* is introduced well after the visually similar concept *cup* is taught, significantly before the visually similar concept *thermos* is introduced and well-spaced from *picture*, which sounds

Table 1. Instructional Content Summary

- **Cognitive Skills**
  - Basic Concepts
    - Regular Nouns
      - Common Objects
      - People
      - Places
      - Parts
    - Classification Nouns
      - Animal
      - Food
      - Toy
      - Number
      - Etc.
    - Descriptors
      - Actions
      - Spatial Relations
      - Concepts of number/amount
      - Time concepts
      - Weather concepts
      - Concepts of function
      - Concepts of possession
      - Polar attributes
        - visual
        - auditory
        - tactual
        - smell
        - taste
      - Colors
      - Shapes
    - Instructional Words
      - Yes/No
      - Not
      - And/Or
      - Same/Different
      - Etc.
  - Cognitive Operations
    - Follows directions
    - Requests
    - Rejects
    - Imitates
    - Uses objects functionally
    - Locates
    - Sorts/Matches
    - Names
    - Describes
    - Answers questions
    - Makes statements
    - Asks questions
    - Classifies
    - Sequences
    - Gives examples
    - Completes analogies
    - Tells similarities and differences
    - Retells story or event
    - Engages in conversation
- **Motor Skills/Chains**
  - Gross Motor
    - Pre-Ambulatory Skills
      - Protective Extension
      - Head Control
      - Rolls
      - Sits
      - Assumes sit
      - Creeps/Crawls
      - Cruises
      - Assumes stand
      - Stands
    - Ambulatory Skills
      - Walks
      - Runs
      - Jumps
      - Uses stairs
      - Balances
      - Handles balls
      - Climbs
      - Rides trike
      - Swings/Slides
  - Fine Motor
    - General manipulative Skills
      - Reaches
      - Grasps
      - Releases
      - Places
      - Turns
      - Pushes/Pokes
      - Pulls
      - Threads
      - Etc.
    - School Skills
      - Draws/Writes
      - Erases
      - Folds
      - Paints
      - Builds
      - Cuts
      - Pastes
      - Etc.
    - Self-Help Chains
      - Removes clothing
      - Unfastens
      - Puts clothing on
      - Fastens
      - Uses toilet
      - Washes
      - Dries
      - Brushes teeth
      - Eats
      - Drinks
      - Pours
    - Articulation
- **Complex Cognitive and Motor Routines**
  - School/Self-Management/Leisure
    - Initates routine at appropriate time
    - Prepares for routine
    - Completes routine
    - Problem solves as necessary
    - Terminates routine
    - Communicates needs
    - Socializes

North Thurston's Reading—

Continued from Page 3

this is the case. However, most principals lack the training, and the nature of their job does not permit the time needed to answer questions, assist teachers in their classroom, and model a specific technique, such as a correction procedure, with a group of students. Finding others to take on the training role was a common arrangement in Project Follow Through: well-trained personnel other than principals were the ones who typically provided active instructional leadership. This model certainly does not preclude the principal from the role of instructional leadership; rather, it opens the role of training to others.

Reactions from Teachers and Parents to Reading Mastery

In many districts throughout the country, a certain number of teachers have initially reacted to direct instruction programs with skepticism. This is a natural reaction, and an experienced administrator would predict that this will happen with almost any new or "different" curriculum. The emphasis on voluntary use of the *Reading Mastery* programs has mitigated some of the potentially skeptical or negative reactions. Even more important, it has permitted teachers who were initially indifferent or critical of the program to see the marked and positive impact of *Reading Mastery* on students. Furthermore, community reaction has been quite positive, with parents stating that they are not only pleased that their children are finally reading, but that they are reading so well. Many parents, in fact, have come forward and asked that their children be placed in the *Reading Mastery* programs, regardless of the child's achievement level.

Pete Kerl, principal at one of North Thurston's elementary schools, cites several unusual changes in teacher attitudes as the *Reading Mastery Program* has gradually been adopted in his school. For example, in the coming year many of the staff trained in direct instruction will go into new assignments. Naturally, there is a need to replace these teachers. In order to fill the gap, a surprising group of teachers have volunteered to teach the program. For example, a teacher with 20 years of experience unexpectedly asked to be trained in *Reading Mastery*. This also occurred with a sixth grade teacher, and both will receive training this summer. In over ten years as a principal, Kerl has "never seen such a strong grassroots support for a curriculum from teachers."

Planning for the Future

In August, between 20 to 30 North Thurston teachers will be trained in the *Reading Mastery Programs* for three weeks just prior to the new school year. One week will be devoted to an overview of direct instruction and *Reading Mastery*. The remaining two weeks will involve actual training in *Reading Mastery* with groups of students. Follow up sessions will continue throughout the year. Ultimately, the district will incorporate a more generic, program independent form of direct instruction training in its overall inservice program.

To document the effects of the direct instruction programs, the district is engaged in a variety of data collection activities. Preliminary data, such as the progress by fourth grade students described earlier, is fueling this effort and the district is strongly committed to going beyond enthusiasm and subjective judgement in order to describe the long term impact of the programs. Carol O'Connell at Olympic View, is collecting longitudinal data and is particularly interested in what happens to students who have been in *Reading Mastery* for three years and will be returning to the district adopted reading program next year. Finally, all principals are encouraged to keep careful data on student progress, both on the form of the program's continuous tests and standardized tests administered twice a year. We hope to have further reports on progress at North Thurston School District for future editions of the *ADI News*.

Continued from Page 1

quite similar.

Once we decide on when to introduce *pitcher*, we define a "universal set" for *pitchers*. The universal set contains all pitchers our children are likely to encounter in their lives, plus all of the contexts in which we expect them to demonstrate that knowledge (Horner, Sprague & Wilcox, 1982). Our universal set might include, asking for a pitcher by name wher handed a can of juice at home, labeling a particular pitcher used at snack, answering "pitcher" when asked, "What do you pour with," during an instructional group, and attempting to pour with a pitcher in our sandbox.

Having developed a universal set, we must list those features common to all of our universal set members and the irrelevant features, those which vary from one member to the next. Since *pitchers* are common to all of our universal set members, we must think about what is common to all pitchers. First, all pitchers are used to pour and store liquids. Second, all have a somewhat characteristic shape. These are considered "critical attributes". Next, we think about characteristics that vary from one member of our universal set to another. First, pitchers can and do vary. Only some pitchers have handles, lips, or lids. Pitchers may be made of many things like glass, plastic, or china. Some are big and colorful. Others are not. Context variables like person, place, and time of day as well as the nature of the child's response, also need to be considered. Although none are critical attributes, they need to be attended to when choosing relevant examples and during later expansion tasks.

Once common/critical features are identified, training examples are selected that share those critical features. Positive examples should sample the range of those in the universal set. With our interest in efficiency, we try to select the fewest number of examples we can. A pitcher that is small, made of glass with a lip, one that is large, made of red plastic without a lip, and several pictures of pitchers might well be sufficient for mastery. Negative examples are chosen that are minimally different from the positive ones. A coffee mug and picture might be used early on as well as other already firm containers, because they serve to "force" the learner to attend to the relevant dimension(s) of the concept being taught.

Once examples are chosen, an appropriate teaching sequence is developed that carefully sequences the introduction of those positive and negative examples. Here we refer to Engelmann and Carnine's, *Theory of Instruction* (1982). In it, *pitcher* is clearly an example of what is called a basic form noun concept and as such requires a "noun sequence."

Before pursuing a noun sequence however, our concept needs to be pretested. A pretest in which our children are asked to touch and/or name a variety of pitchers and other containers is conducted. We have found that if our children can identify a core set of objects, they often acquire new object concepts quite readily. The information we receive allows us to avoid wasting time on already "firm" concepts. Assuming the children are not already firm on *pitcher*, we begin teaching.

To assure that our children will be able to make the verbal response *pitcher*, we need to begin shaping that response BEFORE introducing the concept, *pitcher*. That shaping will take place during what we call our "articulation track." During this track our children are asked to say "pitcher" a number of times. Improvements in saying the word are heavily reinforced. Manual signs are often taught with the verbal approximations to allow children who are otherwise unintelligible to be understood. Improved articulation can generally be shaped over several days and sessions. The procedures described by Engelmann and Carnine (1982) for motor responses work well. Once an improved verbal response, "pitcher", and manual sign are established, they are required when the conceptual task is introduced.

To introduce the concept *pitcher* Engelmann and Carnine's "noun sequence" is used. To teach "pitcher," we point to 3 or 4 maximally different positive examples and say, "This container is a pitcher." Next, our children are asked to label several of those same examples when we ask, "What kind of container is this?" As we said before, the children are required to use their improved verbal response and manual sign here. If further practice is needed, the word would be recycled into our articulation track. If the children's response "pitcher" is intelligible, they are then asked to name 1 or 2 different objects that are firm. Ones that are particularly similar to pitcher like "cup" and "picture", are best used if the children can handle it. Finally, the children are asked to label several new examples of *pitcher*. The sequence, often 11 examples in all, takes approximately 3-5 minutes to perform and is repeated over several days with different sets of examples. Initial instruction ends when the children can label previously untrained examples of pitchers on two different occasions.

Our teaching is far from complete at this point. Assuring that our children generate the concept, *pitcher* in more difficult and "natural" contexts is our ultimate goal. We want our children to use the word "pitcher" when they want one, label it in a variety of settings, say "pitcher" when asked to name something you pour from, and use one functionally. To achieve these goals, we design a variety of "expansion tasks" that sample the sources of variability in the universal set. That is, our expansion tasks further vary the examples, require new responses from the children or prompt the new response in increasingly diverse contexts (Engelmann & Carnine, 1982, Section 5). Here, one expansion might involve prompting our children to label a never before seen pitcher during free play in the sandbox. Another relevant expansion task might require our children to answer the question, "What do you pour with?" A final task might require our children to ask for a pitcher by name when preparing for snack. By sampling a range of such activities, we show our children that certain attributes are irrelevant to our concept and truly teach the general case.

Direct Instruction principles allow us to teach the most with the least amount of instruction. This attention to instructional variables allows us to teach cognitive skills like *pitcher*, motor skills like *jumping* and complex routines like *toileting*, both efficiently and effectively.

Procedures to Increase Efficiency

Our particular interest in teaching efficiently has also led us to attend to a variety of organizational details. This section describes some of these details and how attention to them reduces wasted time and increases relevant instruction.

As in other DI classrooms, there is an emphasis on tight scheduling. Every moment the children spend in our classrooms is planned for and used to its best advantage. Instruction begins the moment children arrive and continues until they wave from their buses at departure time. Generally, seven 15-minute instructional groups are conducted during our 3-hour day. Intense language groups are typically followed by motor groups in an effort to keep children ultimately engaged. Timers are used to help groups start and end on time. Transitions are formatted and rehearsed to reduce the time spent on them. Opening activities, closing activities, snack, toileting, and play are well utilized. Appropriate child behavior during these routines is shaped from day 1. New skills taught in instructional groups are routinely prompted and reinforced here.

Staff roles are related to efficiency. Our instructional groups are led by well-trained teaching assistants which allows us to spend more time on instruction. Assistants are initially assigned only a few content areas or tracks to teach. This makes training and supervision much more manageable. Keeping programs updated and operating smoothly on a daily basis can be a difficult task. Our teachers have between 12-16 children in their classrooms working on 15-20 programs each with 3-4 assistants doing the teaching. To prevent potential confusion, our teachers serve as classroom managers when possible. As classroom managers, they follow groups of children from the moment they arrive until departure time and provide any needed staff training or supervision.

Our small group practices allow us to get and keep our children maximally engaged during instructional activities. Some of these more "visible" Direct Instruction practices are related to the structure of our groups. Groups are small (2-4 children) and homogeneous when possible. Children are seated close to the teacher with lower performing/more difficult children in the middle. Frequent signalled group responses are characteristic.

The age and level of sophistication of our learners has prompted us to include some additional group practices. Programs are kept particularly short. Three or four different "tracks" are worked on in each of our 15 minute small groups. These are repeated during the day as needed. Task content is varied to keep interest high. For this reason, naming and requesting tasks are often interspersed. Materials are similarly varied to help keep children motivated. Our classroom rule is to use particular sets of materials only two days in a row. Reinforcement for a job well done is enthusiastic, frequent, and related to the task whenever possible.

Of particular value has been our ability to gain immediate compliance within the small group setting. To get children "listening big," we deliver a rapid series of high probability directions as soon as children are seated in group and before teaching any task. For example, if the concept *pitcher* is to be taught in group, the teacher begins the group by having the children clap their hands, show how they rock a baby, and then look at a particular object which will be used to teach *pitcher*. Our program to teach *pitcher* can then begin immediately. Giving high probability directions keeps most children involved during small group instruction.

Attention to organizational detail allows us to teach the most in the least amount of time. Tight scheduling, changing teacher and assistant roles, and important small group practices serve to reduce disruption and maximize relevant practice. When attention is focused on choosing goals strategically, teaching generalized skills efficiently and effectively, and manipulating organizational variables, instruction continues to improve for our children. That's really what it's all about.

Some Conclusions

Direct Instruction works in classroom programs for handicapped preschoolers. It works because of its emphasis on doing the most you can in the least amount of time. With that has come a powerful interest in choosing objectives that take us where we want to go and doing that efficiently by using teaching strategies that teach generalized skills.

We've come a long way but we have a long way to go. Our goals for the future include improving on what we do with kids by: (1) keeping "improvement" our ever present watchword, (2) generating a written curriculum for teaching preschool aged handicapped children to include all of the variables we think important (i.e., what to teach, how to teach it and other practices that reduce wasted time), and (3) implementing the program via positive training and supervisory practices .

References

Alessi, G. Generative strategies and teaching for generalization. *The Analysis of Verbal Behavior*, 1987, 5, 15-27.

Becker, W. C. Applied Psychology for Teachers: *A Behavioral Cognitive Approach.* Chicago: Science Research Associates, 1986.

Brown, F. Meaningful assessment of people with severe and profound handicaps. In M. E. Snell (Ed.), *Systematic Instruction of Persons with Severe Handicaps.* Columbus Ohio: Charles E. Merrill, 1987.

Bruner, J.S. *Toward a Theory of Instruction.* Belknap/Harvard Press. Cambridge, MA., 1966.

Engelmann, S. & Carnine, D. W. *Theory of Instruction: Principles and Applications.* New York: Irvington, 1982.

Engelmann, S. & Colvin, G. *Direct Instruction for Severely Handicapped Learners.* Unpublished manuscript, 1986, (Available from Engelmann-Becker Corp, 805 Lincoln, Eugene, Or. 97401).

Engelmann, S. & Osborn, J. *DISTAR Language 1* (Rev.). Chicago: Science Research Associates, 1987.

Horner, R., Sprague, J., & Wilcox, B. General case programming for community activities. In B. Wilcox and G T. Bellamy (Eds.), *Design of High School Programs for Severely Handicapped Students.* Baltimore, MD:

Distar Language—
A powerful tool for teaching

A powerful tool for teaching:

- A basic vocabulary
- A rich body of knowledge about the world
- The oral language and writing skills needed to ask precise questions and to communicate ideas.

These are the abilities that a new report, *Becoming a Nation of Readers*, lists as being *important* to all children who are learning to read... *critical* for children who have not grown up with oral language that resembles the language of school and of books... because these abilities are the basis of comprehension.

And these are the abilities that teachers have been successfully teaching children for almost twenty years with Distar Language programs.

But Distar Language does more than teach the complex language skills needed to understand classroom instruction and comprehend written text. Distar Language programs go beyond the content of other language programs to give you the help you need to teach critical thinking skills, skills that enhance a child's intellectual development.

With Distar Language you teach logical thinking through:

Classification
Analogies
Deductive reasoning
Inductive reasoning

You teach students to be "THINKERS" who use language as a tool. And that is the foundation for eventual success in all school subjects.

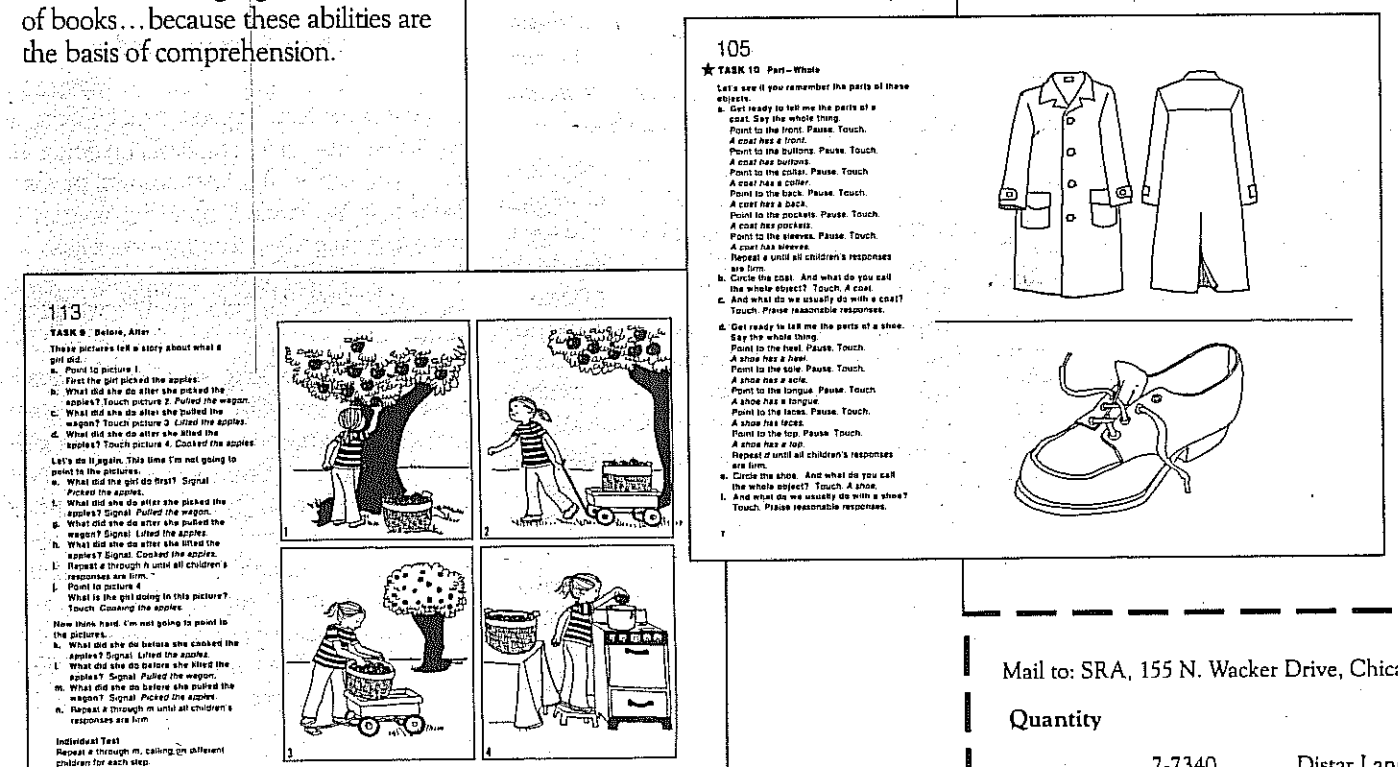
And now the Distar Language program is better than ever! Distar Language I has been revised to give you:

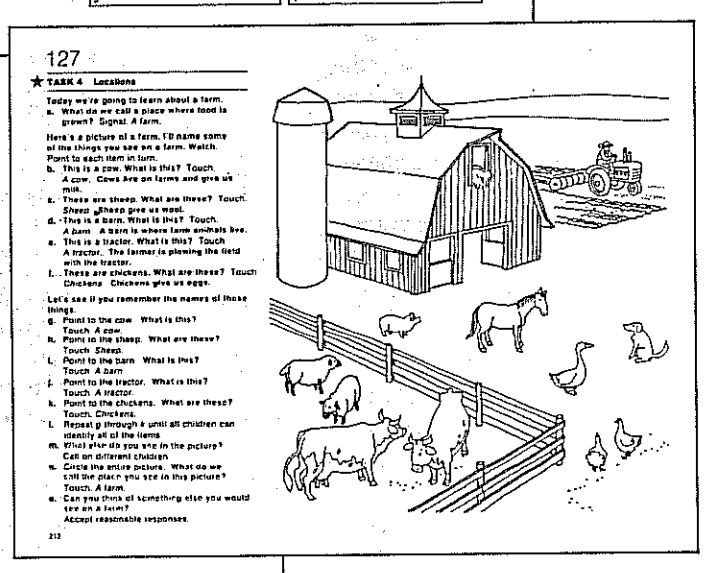
Expanded Language Activities—ideas for fun-to-do songs, read-aloud stories, nursery rhymes, and plays. These informal lesson extensions encourage students to apply their language skills in classroom activities. Language achieves full naturalness at a remarkably early stage.

Fast Cycle—an in-lesson skipping schedule eliminates unnecessary drill and practice for average and above-average students. A "star" identifies the tasks that you teach to all students. You are free to skip the remaining exercises with the faster children. Lessons are easier to adapt to student ability.

Take-Homes—lively pencil and paper activities teach color, shape and workbook skills. Activities reinforce skills, demonstrate that students can apply language concepts. Illustrations are improved. There is more to do on each page.

Use this order form to receive these exciting new materials as soon as possible.





Examples from Teacher Presentation Book D

SRA®

Mail to: SRA, 155 N. Wacker Drive, Chicago, IL 60606

Quantity			Price	Extension
_____	7-7340	Distar Language I Classroom Kit	$280.00	_____
_____	7-7346	Additional Teacher's Guide	10.00	_____
_____	7-57347	Take-Home Workbook 1 (pkg of 5)	14.85	_____
_____	7-57348	Take-Home Workbook 2 (pkg of 5)	14.85	_____
_____	7-57349	Take-Home Workbook 3 (pkg of 5)	14.85	_____

Ship to:

Date _____ SRA Account Number _____

Purchase Order Number _____

Ordered By _____

Account Name _____

Address _____

City, State, Zip Code _____

Attention _____

Telephone Number _____ Good time to reach _____

Sold to:

SRA Account Number _____

Account Name _____

Address _____

City, State, Zip Code _____

Attention _____

Telephone Number _____ Good time to reach _____

Tax Exemption Number _____

Preferred Delivery Method _____

All orders are offers to purchase, subject to acceptance or rejection by SRA in Chicago, Illinois, in accordance with SRA's published terms and conditions of sale. Customer pays all shipping charges. Prices subject to change without notice.

Combining Categorical Services —

Continued from Page 1

Table 1. Mukilteo Learning Support System Metropolitan Achievement Test NCE Gains Fall to Spring (Months) 1986-87

Language

Category	Grade 2	3	4	5	6
Special Ed	+6.8 (4)	—	+7.0 (1)	+0.7 (3)	+15.8 (4)
ESL	+33.0 (1)	—	—	—	—
Basic	—	—	+10.0 (2)	-1.7 (3)	+10.0 (4)
Chapter 1	+9.8 (6)	+10.1 (7)	+12.0 (5)	+3.6 (8)	+12.0 (2)
RAP	+14.8 (5)	-1.5 (2)	+11.0 (1)	+6.3 (6)	—
All MLSS Students	+12.1 (16)	+7.6 (9)	+10.9 (9)	+3.2 (20)	+12.7 (10)

Reading

Category	Grade 2	3	4	5	6
Special Ed	+18.4 (9)	+14.7 (7)	+8.4 (5)	+5.0 (4)	+9.1 (10)
ESL	+3.5 (2)	+0.3 (3)	+15.0 (2)	+9.0 (1)	+14.7 (3)
Basic	+4.7 (13)	+13.4 (19)	0.0 (3)	+7.3 (3)	+7.0 (7)
Chapter 1	+12.7 (20)	+14.7 (30)	+8.3 (16)	+3.7 (25)	+7.1 (9)
RAP	+10.3 (24)	+11.1 (19)	+10.4 (22)	+6.5 (18)	+6.5 (8)
All MLSS Students	+10.8 (68)	+12.1 (78)	+9.0 (48)	+5.1 (51)	+8.1 (37)

Math

Category	Grade 2	3	4	5	6
Special Ed	+13.8 (5)	—	—	-9.0 (2)	+2.5 (6)
ESL	—	—	—	—	—
Basic	—	—	—	—	—
Chapter 1	+16.0 (1)	—	+5.5 (4)	-4.4 (7)	+21.0 (2)
RAP	+7.6 (5)	+8.0 (2)	+4.3 (3)	-7.3 (13)	+10.5 (4)
All MLSS Students	+11.2 (11)	+8.0 (2)	+5.0 (7)	-6.5 (22)	+8.3 (12)

Maintaining Program Accountability

In order to meet requirements of fiscal accountability, a student and personnel tracking system is used that allows *proportional funding* of staff members in each LSC. District payroll records reflect the specific amount of time each person works with eligible students according to the various categorical labels. In order to ease the paperwork burden, this tracking system uses the district's VAX computer system which is networked to all schools. This tracking system not only allows the district to comply with regulations, but also allows the continuation of an efficient, student-oriented model of service delivery that co-mingles services but tracks expenditures separately.

Increasing Benefits and Achievement

There are several advantages to a coordinated approach to intervention for low-performing students. Program coordination can promote school-wide and district-wide cooperative approaches to meeting the needs of students and encourage the sharing of instructional and administrative expertise across a broad range of staff. Coordination can also provide a "critical mass" of support resources to more effectively and efficiently utilize finite educational funding. Any appropriate reduction in the duplication of support services increases the efficiency of services delivered.

Another benefit of combining categorical programs is that timely intervention occurs for students with instructional needs without extended delays due to meeting eligibility standards. Service within the MLSS is designed to permit early and appropriate intervention. For example, a student who is suspected as having a handicapping condition may enter the LSC as a Chapter 1 or remedial student. Should a student's lack of progress warrant it, a referral for additional assessment may be made to determine eligibility for special education. The student continues to receive assistance during the referral and testing process.

Improving student achievement is the organizational goal of the Mukilteo Learning Support System. Table 1 gives the normal curve equivalent (NCE) gains in months on fall-to-spring Metropolitan Achievement testing for elementary students in MLSS for 1986-87 school year. All students in grades 2-6 who were served by the system for at least 1 semester were included in the pre/post test group. These data indicate that a coordinated service model utilizing Direct Instruction as the primary instructional model can make a significant difference for students.

Reading Mastery in Daly City

by Winifred Kum
Bayshore Elementary School District

Description of the District

The Bayshore School District is located in Daly City, California near the Cow Palace and south of San Francisco. It is the northern most district in San Mateo County.

The District is comprised of two schools: Bayshore and Robertson Schools. The total district population of 440 students attend school from kindergarten through the eighth grade.

Bayshore School currently serves approximately 260 students from kindergarten through the fourth grade. Robertson School currently serves approximately 180 students from fourth through eighth grades. The 4th, 5th and 6th grade classes are self contained. All 7th and 8th graders are departmentalized groupings.

Generally speaking, the parents of children attending the District schools are a working class group residing in a bedroom community. Approximately 150 units comprise a low cost housing area located within the District.

Bayshore families are large. From a sample survey, over 80% of the families reported over 5 people in the household (17.5% have 8-10 people in the family and 5% reported 11 or more family members). Fourteen percent of the total school population receive Aid for Dependent Children (AFDC); 35% at Bayshore School receive free or reduced lunches; and 24% at Robertson School receive free or reduced lunches.

The ethnic and racial diversity of the Bayshore School District community enriches the educational and social aura of the campus. The student population is approximately 26% Filipino, 21% Hispanic, 20% Black, 16% Samoan, 6% Asian, 7% White and 4% other.

The District began to pilot *Reading Mastery IV, V,* and *VI* in January, 1985 at Robertson School. At the same time, the *Corrective Reading Program* (both *Decoding* and *Comprehension*) was implemented. Because of the positive attitudes of the teachers, and the enthusiasm and success of the students, the staff of the Bayshore (elementary) School was curious as to how the program would affect the younger students. On September, 1985, the Resource Specialist Program teacher at Bayshore School began a pilot reading program using *Reading Mastery I, II,* and *III.* At the same time, the Chapter I teacher began a pilot program using *Distar Language I.*

As a result of the positive responses of both staff and students who were using the SRA programs, Bayshore School began full implementation of the SRA *Reading Mastery Series* in September, 1986. Teachers returned early from their summer vacation to attend staff development workshops. Students were assessed and placed in their appropriate reading levels. Adjustments were made to lengthen the reading period, and the primary classes were divided into 3 groups, as recommended by the SRA consultant, who came a number of times to assist teachers in "fine tuning" the program at both district schools.

Reading Mastery

The staffs at both schools learned the Direct Instruction teaching methods and approached this program in a very positive manner. Teachers using *Reading Mastery I* through *VI* spoke in favor of the program as follows:

- Words and content of stories are repetitious and are reinforced continually.
- Stories are interesting and appealing to youngsters as well as being fast paced.
- Students attend constantly with good success rates; students enjoy the "system."
- The entire program is structured, well organized and easy to follow.
- The program is easy to administer with a built-in management system.
- There is maximum student-teacher interaction, as the program lends itself to small group instruction.

Areas in which teachers felt the most concerned included the following:

- The Take-Home Book pages are too easy in the beginning Reading Mastery series. Seatwork pages are too easy.
- Students are not introduced to the skills as measured on the Comprehensive Test of Basic Skills (CTBS).
- Sentences begin with "And," and "But."

Initially, teachers were most concerned with the lack of capital letters in *Reading Mastery I.* However, students were not bothered with this lack and readily adjusted when taught capital letters in their language arts lessons. Similarly, the "a" was difficult for youngsters to write. Students called it the "reading a."

Corrective Reading

As stated in the aforementioned, the *Corrective Reading Program* was used with the intermediate grade youngsters. Teachers using the Decoding lessons love the sequential introduction of phonetic and sight words and the reinforcement of these elements. Students readily see their own progress. There is spontaneous class participation. Teachers using the Comprehension books like the focus of reading in the content areas. They feel that skills can easily be transferred to other areas. There is also story writing with every lesson.

Summary

The staff has learned and grown much since teaching in a Direct Instruction mode. Many have transferred the skills and techniques of direct instruction to other areas of the curriculum. Several teachers have remarked, "If we only knew then what we know now...!"

In addition to the implementation of Direct Instruction in reading, the oral language program has been used with many of the youngsters requiring additional language assistance. Those teachers using the program have felt it has far exceeded other language programs. *Spelling Mastery* is used in the primary Resource Specialist Program. *Corrective Spelling through Morphographs* is being taught to the 7th and 8th grade students. Basic Language and Basic Writing Skills, also Direct Instruction programs, will be considered next.

In a few months, the District's annual assessment program will take place. We all look forward to comparing the scores of our students with the previous year's scores.

Please Post Please Post

ADI Presents

Washington State Inservice Day DI Training Workshops

October 9 & 10, 1987

Holiday Inn West
Spokane, Washington

Training Sessions Offered:

Reading Mastery I & II
Tracey Hall

Teaching Expressive Writing Skills
Carole Allen

Direct Instruction for Severely Handicapped Learners
Ann Arbogast

Federal Way Executel
Federal Way, Washington

Training Sessions Offered:

Reading Mastery I & II
Phyllis Haddox

Reading Mastery III-VI
Marcy Stein

Teaching Expressive Writing Skills
Jerry Silbert

Workshop Descriptions

Participants will choose one.

Reading I & II
Presenter: Tracey Hall (*Spokane*), Phyllis Haddox (*Federal Way*)

Regular grades K-2, non-readers in grades 1-6. How to teach beginning students to read and how to teach remedial students— those who read very poorly or not at all. This session will provide training in SRA's *Reading Mastery I & II*. Participants will learn the basic information and skills needed to implement the programs— placement, acceleration, scheduling, grouping, presenting prereading exercises. Participants will receive *Reading I* and *Reading II Teacher's Guides*.

Reading Mastery III-VI
Presenter: Marcy Stein (*Federal Way*)

These programs present a careful sequence for teaching comprehension and decoding skills to students who have mastered the basics. Programs provide for meeting the full range of decoding and comprehension objectives, including management systems for monitoring student progress, and teaching all component skills (vocabulary, rules, information, map skills, context analysis) needed for students to completely understand the expository and fictional selections presented in the program.

Teaching Expressive Writing Skills
Presenter: Carole Allen (*Spokane*), Jerry Silbert *(Federal Way)*

Regular grades 3-4, remedial 4-12. Overview and training in specific procedures for using Levels I & II of SRA's *Expressive Writing Program*. These programs teach students the most difficult first steps in expressive writing through a basic sentence writing strategy and an organization strategy that are applied to simple reporting and interpreting activities. Students learn editing, punctuation and paragraphing skills. Participants will receive an *Expressive Writing* Teacher's Guide.

Direct Instruction for Severely Handicapped Learners
Presenter: Ann Arbogast (*Spokane*)

This workshop provides technical information on how to manage and teach severely retarded learners. Participants will learn management techniques for inducing compliance to verbal instructions, inducing generalizations, firming responses, and expanding the range of activities presented to the learner.

Participants will practice techniques for dealing with problems of echolalia, superstitious behavior, and very limited receptive language. This practical, how-to workshop, uses video demonstrations of the techniques being discussed.

Registration Information

Workshop Fees & Discounts: The workshop fee is $70.00, which includes all workshop materials. ADI Members receive a 20% discount ($14.00). Groups of 5 or more from a single district or agency receive a discount of $10.00 per participant. Contact Bryan Wickman at (503) 485-1293 for additional information.

Optional College Credit: One unit of credit is available from the University of Oregon for $20.00 (in addition to the workshop fee).

Workshop Locations & Lodging: *Federal Way:* Federal Way Executel, 31611 20th Ave., South, Federal Way, Washington, 99204. The Executel has extended a $45.00 single, $51.00 double room rate to workshop participants. To reserve rooms call (206) 941-5888. *Spokane:* Holiday Inn, West, 4212 Sunset Blvd. Spokane, Washington, 99204. The Holiday Inn West has extended a $38.00 room rate to workshop participants. To reserve rooms call (509) 747-2021. Indicate you are with the ADI group to get the discounted room rate.

Workshop Dates and Times: Friday,October 9 – 8:30 pm to 4:00 pm and continuing Saturday,October 10 – 10:00 am to 1:00 pm (8:30-11:30 Federal Way).

To Pre-Register: Please fill out the registration form. Enclose with check or Institutional purchase order for the proper fee and mail to the Association for Direct Instruction, P.O. Box 10252, Eugene, Or. 97440.

Workshop Registration Form

Name:_____
Address:_____
City, State, Zip:_____
Day Phone:_____
Position:_____
I would like to attend the session titled:
_____

In _____ Spokane or _____ Federal Way
Please check one:
___ I have enclosed $70.00 Workshop Registration fee ($54.00 for ADI Members).
___ I have enclosed a Purchase order from my School District in the amount of $ _____
___ I have enclosed _____ for a group of _____ Participants ($60.00 per participant for groups of 5 or more).

Workshop Registration Form

Name:_____
Address:_____
City, State, Zip:_____
Day Phone:_____
Position:_____
I would like to attend the session titled:
_____

In _____ Spokane or _____ Federal Way
Please check one:
___ I have enclosed $70.00 Workshop Registration fee ($54.00 for ADI Members).
___ I have enclosed a Purchase order from my School District in the amount of $ _____
___ I have enclosed _____ for a group of _____ Participants ($60.00 per participant for groups of 5 or more).

Planning for Substitute Teachers

by Geoff Colvin
Lane E.S.D.
Robert Lowe,
Principal, Tucson, Wyoming

Editors note: This is a chapter from the book Establishing a Schoolwide Discipline Plan, recently published by Geoff Colvin and availablefor $9.00 through Behavior Associates, P.O. Box 10459, Eugene, Oregon 97440

It is a universal rule among students that, "Substitute teachers are fair game." There are several reasons for this situation such as: the substitutes do not know the children; the assigned work is unclear; the substitute teacher does not follow the normal routine; the substitute teacher may try to just get through the day knowing that he or she will not be back the following day; children test the substitute teacher thinking they may be able to get away with more and the substitute may be unfamiliar with the discipline procedures throughout the school. At a recent workshop substitute teachers were asked to identify problems or difficult situations that arose while they were teaching. The following quotes were taken from the survey:

"I told a principal that I would never sub in his school again. The kids had no respect and everyone did what they wanted to do."

"In one class I could only get six of the children to work. The rest were unruly, talking out, wandering around the room noisy, refusing to work, interferring with other students and being insulting to me. I would never sub again except that I need the work and one day I hope the District will give me a fulltime job."

"I sent one student out to the hallways and he just disappeared. The principal could not find him and ended up having to call the police. I felt so bad."

"While showing a film one day I got hit in the face with an eraser. No one would fess up so I stopped the film. Then all of the class got mad. I then said they had to do assignments and no one would do the assignments. So I just sat there at the desk and tried to read a book."

"I sent one kid to the principal for calling me an obscene name and the principal sent the kid back to me with a note to take care of discipline myself and that I am supposed to be trained. I was furious."

"I could not read the teacher's notes on what work the children were supposed to do. So I spent the whole day trying to make up math problems, reading problems etc. The children were no help. They kept saying things like, 'We have already done that,' or 'We normally have free time now.'"

While substitute teachers will have difficult times, they can be provided systematic assistance which will help to minimize the problems they are likely to have. There are two basic strategies for assisting substitute teachers: (1) Provide adequate communication from principal, classroom teacher, office staff and, support staff:; (2) Use a behavior control system specifically designed for substitute teachers.

Providing Adequate Communication: The Role of the Building Principal

The building principal needs to communicate to the substitute that they are teachers and that they play a significant role in helping to reach the educational goals of the school. Substitutes need to feel that they belong and the principal's attitude is a key factor in meeting this need. There are several specific steps a principal can take to assist the substitute teacher. (These steps could be written down in the form of a checklist so that the principal does not need to rely on memory):

1. Assure the substitutes that they will be assisted with any problems and that they will be notified who is in charge of the building should the principal be absent.
2. Introduce the substitute to key personnel, especially staff who may be working with the class in any capacity.
3. Take the substitute on a quick tour of the building and be sure to point out the lounge, cafeteria, and restrooms.
4. Walk the substitute through school policy regarding problems and procedures (accidents, fire drill etc.).
5. Inform the substitute of any meetings or assemblies and invite him/her to attend where appropriate.
6. Let the substitute know when you will be available throughout the day should any questions arise.
7. Check occasionally throughout the day to see how the substitute is doing or to see if they have any problems.
8. Do not send discipline problems back to the class right away otherwise the substitute may conclude that you are not providing support.
9. Encourage teachers to maintain updated folders and lesson plans and check to see that they are kept current.
10. Inform the substitute of any specific problems or special programs for the students.
11. Inform the substitute of any special procedures for checking out equipment or for using any special purpose rooms in the building.
12. Have available current schedules for Music, Art, and P.E.
13. If possible have teachers prepare and discuss with the substitute in advance, the details of lesson plans (especially in the case of an extended absence). Some teachers make their telephone number available to substitute teachers.
14. Have the classroom teachers identify priority work from the lesson plans.
15. Give the substitute information of what can be told to the students regarding the teacher's absence.
16. Give the substitute an up-to-date packet of information on school policy and procedures.
17. Encourage the substitute to do a good job and wish them well for the day(s).

Role of the Classroom Teacher

The classroom teacher is the one who can make or break the substitute teacher. If the lesson plans are complete and the substitute folder is current and sufficiently detailed then even the most mediocre substitute has a chance of making it through the day. However, if the lesson plans are vague and the folder is quite inadequate then even the most capable substitute teacher will have a difficult time. The classroom teacher should attend to the following details in order to lay the groundwork for the substitute teacher:

1. Make available clear, precise and complete lesson plans for the duration of the substitutes time in the classroom.
2. Make available the daily schedule and clearly identify any special schedules.
3. Make available updated seating charts.
4. Ensure there is adequate work for all students and leave a file for extra work or alternative activities should the faster students finish early.
5. Indicate where materials are located.
6. Leave notes for students who may require special attention or considerations.
7. Leave the name of a teacher who may be called on for information or assistance. Ensure the designated teacher is aware of this arrangement.
8. Ensure the substitute folder is readily available and up-to-date.
9. Leave a list of classroom rules and information on any specific discipline procedures or plan.
10. Leave the names of helpful or reliable students.
11. Leave some alternative activities in case the regular plans have to be changed.
12. Leave answer sheets.
13. Indicate whether or not the papers or assignments need to be graded. Leave a copy of the grading procedures.
14. Have teacher's manuals available.
15. Invite comment on how the day(s) went and establish some way for the substitute to provide feedback or to identify any pertinent information about the class.
16. Wish the substitute teacher well.

Role of Office Staff

Office staff can play a significant role in assisting the substitute teacher. Office staff should come forward to introduce themselves to the substitute and the help them with some of the clerical details such as signing in. Specifically, office staff could help with the following details:

1. Inform the substitute on how and where to sign in and out of the building.
2. Take the substitute to the classroom if the principal is unavailable.
3. Locate lesson plans and any information that the classroom teacher may have left for the substitute teacher.
4. Show the substitute where the children enter the room and or building and where the teacher begins supervision.
5. Provide any building information: manuals, fire drills, lunch, recess schedules and procedures for purchasing lunch if appropriate.
6. Inform the substitute of any particular changes in the schedule and notify them which specialists may be involved with the class that day.
7. Inform the substitute of any detail regarding materials or supplies.
8. Inform the substitute of teachers who may help and identify the teacher in charge should the principal be absent.

Role of Support Staff

Support staff can also provide important assistance to the substitute teacher. Support staff can make the transitions from regular classroom activities to the specialist activities much smoother if they attend to the following details:

1. Introduce yourself to the substitute teacher, and tell him/her exactly what specialist area you have and identify any specific routines you may require (where the children line up etc.).
2. Inform the substitute of any special materials you may need.
3. Be sure to track students arrival at your class. Some students may take advantage of the situation and take leave.
4. Be prepared to provide extra supervision, especially as the class arrives.
5. Send the students back to the classroom calmed down and be ready to help with supervision of the transition.

A Behavior Control System

The substitute teacher could preempt many behavior problem situations by ensuring that there is some kind of management plan for the day. If the teacher has a plan then the substitute teacher should invoke the established plan. If no plan is in place then the substitute teacher should introduce one for the day(s). There are three basic components in a discipline plan for substitute teachers:

1. Establish rules or expectations
2. Establish consequences.
3. Communicate a professional attitude

Establish Rules or Expectations

If the classroom teacher has not identified specific rules for the students then the following five will be useful:

1. Enter the classroom quietly and go to your assigned area.
2. Listen to the teacher's directions or explanations.
3. Raise your hand if you wish to speak or leave your assigned area.
4. Start assigned work promptly.
5. Keep working.

Establish Consequences

Again, if the teacher does not indicate specific consequences then the substitute needs to implement a plan. Basically, positive consequences should follow appropriate behavior and negative consequences should follow inappropriate behavior. Positive consequences could include verbal approval, teacher attention, access to free time or access to preferred activities. It is more effective to have a hierarchy of consequences so that better performance can be more strongly reinforced and deteriorating performance can be more strongly punished. A hierarchy of negative consequences could be:

1st Infraction: Warning (reminder, name on chalkboard etc).

2nd Infraction: Isolation within the room for ten minutes (desk facing the back of the room).

3rd Infraction: Miss the next recess.

4th Infraction: Miss full day of recesses.

5th Infraction: Discipline referral to the principal.

Communicate a Professional Attitude

The substitute teacher can prevent many behavior problems by being sensitive to what they are communicating to the students. For example, if the substitute communicates to the children that he or she is just looking after them for the day, then the children may take over the classroom. If the substitute communicates that his or her main goal is survival then the students will more than likely test these survival skills. However, if the substitute comes across as business like, that the job at hand is to teach, and to get on with it quickly, then the children are more likely to respond to the instruction. Substitutes need

Continued on Page 10

Two Consulting Models– Their Impact on Teachers

by Craig Darch*
Auburn University

Russell Gersten
and Gary Davis
University of Oregon

Within the last decade a movement calling for the removal of the "pull out" or traditional resource room model in special education has developed, arguing that the core educational programs for mildly handicapped students should be conducted within the regular classroom. This movement has intensified in the past few years (Will, 1986; Reynolds, Wang, & Walberg, 1986). Its emphasis has shifted to include the need to provide effective services for all low performing students rather than students who have gone through a formal identification process for special education placement. Will (1986) in a recent essay discusses some changes necessary for the implementation of this model and suggests the need for an individual within a school responsible for providing these services.

This alternative model calls for a new role for the special education teacher, that of providing consulting services to regular education teachers to effectively meet the needs of low achieving students in the regular classroom. However, the exact role of the person who provides and coordinates these services within the regular classroom has not crystalized. When the issue of providing technical assistance to regular educators is discussed, little detail is provided as to how resource teachers can carry out their assigned tasks effectively or how classroom teachers would accept a resource teacher coming into their classroom and making substantive suggestions that alter and perhaps challenge their conventional way of teaching.

Gersten, Carnine, and Green (1982) have described six instructional management functions that served as a conceptual model for the present study. Research suggests that these functions need to be performed by resource teachers, facilitators and/or supervisors in order to have a serious impact on improving the quality of classroom practices for students, handicapped and nonhandicapped (Gersten, Davis, Miller, & Morvant, 1985; Hull & Cox, 1983; Miles & Huberman, 1984). The support functions listed below have particular relevance to efforts to assist teachers in programming for special education students placed into regular classrooms and to "educationally at risk" students.

1. Visible Commitment to Program
2. Provision for Climate for Improvement
3. Monitoring Student Progress
4. Monitoring Teacher Performance
5. Provision of Specific, Concrete, Technical Assistance
6. Miscellaneous

The result of some of this work led to the design of this study. The purpose of the present study was to evaluate the effects of two different models of teacher consultation, each designed to maintain low-performing students in the regular classroom. To help achieve a rich picture of the effects of both the Direct Instruction and the All Schools Achievement Program supervision models (described below), quantitative and qualitative methodologies were used. In the present study, our observations of the resource teachers, and interviews with the regular classroom teachers were guided by a conceptual framework of those six *instructional management functions.*

Instructional Programs

The two instructional programs were *All Schools Achievement Program* (ASAP) and *Direct Instruction Program* for teaching academic skills (DI). Both programs had a cadre of resource teachers trained to provide support and technical assistance to help implement each instructional model. Both programs were designed to maintain the greatest number of low-performing students in the regular classroom by using resource teachers as consultants to the classroom teachers. ASAP is a district- developed program based on principles of mastery learning and some of the research on time-on-task and effective teaching. Teachers use traditional basal reading and math series; however, they follow semi-scripted teachers' guides developed by the district when teaching the lessons. The guides highlight selected skills in each lesson. Students are tested at the end of every unit (approximately once a week). Students who fail to pass the unit test are given a one-day "reteaching" lesson, while the other students are provided with enrichment activities. The teacher's rate of progress through the curriculum is monitored by the resource teacher. It is the resource teacher's role to facilitate impact of the model and provide technical assistance to the teaching faculty.

The Direct Instruction program must be considered highly structured. Teachers use scripted lesson formats oriented toward the type of academic skill being taught. The format guide provides teachers with exact wording to use, and specific procedures for correcting errors, reviewing material, and so forth. In the DI classrooms, teacher performance is monitored by resource teachers not only in terms of rate of progress through the curriculum and student performance on unit tests, but also the extent to which the teachers are using the teaching procedures specified in the manual.

What is highly unusual is the district's decision to hire resource teachers in each school to assist in the implementation of each instructional model and to monitor the performance of the low performers while placed in the regular classroom. This situation afforded us an excellent opportunity to see how two very different resource teacher styles are perceived by their assigned teachers. Their role was to assist in the implementation of ASAP or DI by: (a) overseeing appropriate placement of all students in the classroom (both regular and special education students), (b) ensuring that each classroom has the proper materials, (c) monitoring teacher implementation of ASAP or DI, and (d) providing technical assistance about teaching methods appropriate to improving the achievement of the students in the classroom.

Method

Setting

The study was conducted in four urban schools in the West. In each school, the preponderance of students were low income; i.e., 91% qualified for free or reduced lunch. Ninety-three percent of the students were minorities (Black, Latino, or Asian). Each of the schools was fairly large (ranging from 500 to 1,150 students). Student mobility rates were extremely high. The overall achievement level of these schools was quite low in reading. Fifth grade scores ranged from the 5th to 22nd percentile on a standardized achievement test, similar to performance of many mildly handicapped students. It should be noted here that because such a large number of students were ESL students there was a history for the district to evaluate and test students for special education pullout programs as a first service action.

Naturalistic Observations of Resource Teachers

Trained observers spent a full day with all resource teachers for each model, and in total 50 days were spent observing. This resulted in each resource teacher being observed for 48 days. When observed, the resource teachers were told to follow their normal routine for the day. In one case, this involved unpacking and sorting textbooks for five hours, but more typically, this involved classroom visits, observation, record keeping, informal conferences with teachers, or conferences with the principal and/or other supervisors at the school. There were 3 DI resource teachers serving 14 teachers and 5 AGP resource teachers serving 25 teachers.

When observing, the observer recorded the time and activity the resource teacher was involved in. Observations were structured to capture how effectively the resource teachers were engaged in the six support functions listed earlier. At some point during the day, the observer discussed with the resource teachers the purpose of specific activities. Observations were designed to ensure that the interactions between the resource teacher and the classroom teachers involving instructional modifications for the low performers were recorded for detailed analysis.

Teacher Interviews

In total, 39 classroom teachers were interviewed individually. The semi-structured teacher interviews lasted 45 to 60 minutes. The items asked teachers to describe what the supervisor did and how useful these activities were. Items sampled a range of administrative and technical assistance activities. In addition, teachers were asked to give an overall assessment of the usefulness of the observations-feedback process, areas for improvement and their feelings about the ASAP and DI program. All interview items are presented in Tables 2 and 3. Interview items were field tested in pilot study (Green, Gersten, Miller, & Morvant, 1986) and revised once more.

Results

Results are discussed in two sections. First, the data from the interviews with the regular teachers will be profiled in the context of how teachers felt the resource teachers met their administrative and technical assistance responsibilities and how useful teachers felt feedback from their resource teacher was. Next, naturalistic findings taken from the observations will be presented. In this analysis we will discuss our findings in the context of the six support functions.

Analysis of Interviews with Regular Classroom Teachers: A Contrast Between Two Models

Table 1 presents the data from the interviews conducted with the 39 regular classroom teachers served by the ASAP and the DI resource teachers. Interview items are presented hierarchically: Items most tied to procedural or administrative activities (items 1-3) are presented first under the *Procedural/Supervisory* rubric, while items most closely tied to adapting instruction for low performers (items 4-9) are next presented under the *Technical Assistance* heading. All data are presented as the percentage of teachers who reported positively about how their resource teacher met their needs in the specific areas. Analysis of items from the teacher interviews suggest that although teachers perceive the models very similarly in some respects, in other, more important areas related to adapting instruction, particularly for the low-performing student, there are major differences in teacher perceptions.

For example, there were no significant differences between ASAP and DI teachers on each of the three *procedural/supervisory* items. For all teachers the responses were quite positive. None of the *t*-test analyses were significant for the comparisons between models on these three questions.

Such is not the case when the *Technical Assistance* items are considered. Significant differences in the perceptions of the two sets

Continued on Page 11

*This research was supported in part by a grant from the Office of Educational Research and Improvement of the U.S. Department of Education. The authors wish to acknowledge the contributions of Phillip Bourbeau, William Green, and Steve Steiben to this project.

Substitutes

Continued from Page 9

to believe that they are an essential part of the teaching system and that they have a clear, constructive function in the classroom. Finally, it is important for the substitute teacher to act quickly on behavioral infractions. They should not allow things to slowly get out of control. It is far better to swoop on behavior problems versus waiting to see if things go further(or go away).

Summary

Substitute teachers often experience hard times with behavior problems. Many of these problems can be prevented if there is a clearly formulated system to assist substitutes. This system falls into two broad categories. First, school personnel (principal, office staff, support staff, and the classroom teacher) need to communicate certain important pieces of information to the substitutes. Second, the substitute teacher should have a discipline plan, either the one already in place, or one that the substitute routinely uses. In addition the substitute's attitude, in many respects, holds the key as to how the children will behave. If the substitute is business like, work oriented, and behaves in such a way as to communicate that he or she is a serious teacher and an important teacher, then the children will more than likely stay on task with the assigned work for the day(s).

Two Consulting Models– Continued from Page 10

of teachers emerge on items assessing instructional areas which directly impact the chances of success of special education students in a regular classroom. For five of the six items, all of which are closely ties to instructional issues that have a direct impact with mainstreamed low-performing students, the DI teachers were significantly more positive in their responses when evaluating the role of the resource teachers than the ASAP teachers. For example, when asked if their resource teachers helped interpret and implement curriculum materials (item 5), 86% of the DI teachers responded positively, while only 44% of the ASAP teachers responded similarly ($p < .005$). Comparable outcomes were found for item 8 (Help with use of test information for regrouping?), item 6 (Does your resource teacher help with classroom organization and management?), item 7 (Does your resource teacher model difficult lessons) and, most importantly, item 4 (Does your resource teacher provide suggestions to help the low-performing students in your classrooms?).

Table 2 presents another possibly even more important perspective taken from teacher interviews. Each of the five items on this interview section asked teachers in general how "useful" they felt their resource teacher was. As can be noted, significant differences were found on each question. These data parallel the results on the Technical Assistance questions presented in Table 1.

Table 1. Classroom Teachers' Responses to Questions about the Role of Their Resource Teacher (RT). ResultsReported in Percent for Those Responding Yes.

Procedural and Supervisory Questions	ASAP[a]	DI[b]	p
1. Has your RT ever helped with student placement?	79	84	NS
2. Has your RT ever helped you to obtain materials?	88	100	NS
3. Has your RT ever observed your teaching?	100	100	NS
Technical Assistance Questions			
4. Has your RT ever made suggestions to you about how to help low performers in your classroom?	48	79	.03
5. Has your RT ever helped you to interpret and implement curricula materials?	44	86	.005
6. Has your RT ever helped you with classroom organization and management?	32	57	.05
7. Has your RT ever modeled a lesson foryou to observe?	21	86	.007
8. Has your RT ever helped you to use test data for regrouping students?	57	87	.02
9. Has your RT ever discussed student test results with you?	44	36	NS

[a] ($N = 25$)

[b] ($N = 14$)

Table 2. Classroom Teachers' Evaluations of the Usefulness of the Role of the Resource Teacher (RT)

Question	ASAP[a]	DI[b]	p
1. To what extent was the overall quality of feedback and observation helpful?	3.0	4.2	.05
2. To what extent was the RT's feedback helpful?	3.24	4.28	.03
3. To what extent was the RT's feedback specific?	2.4	4.2	.001
4. To what extent were the RT's observations helpful?	2.3	4.8	.001

Note: Scores are based on a 5-point scale with 5 = helpful, 3 = neutral, 1 = not helpful.

[a] ($N = 25$)

[b] ($N = 14$)

Findings from Naturalistic Observations of the RT's

For the sake of brevity, findings from the naturalistic observations will be discussed in the context of four of the six support functions. As will be apparent, the findings from the observations are consistent with the data from the teacher interviews and provide useful insights as to why teachers responded to the interview items as they did.

Visible commitment to program of implementation. Activities relating to this area of support would best be characterized as administrative and procedural in nature. We looked at activities such as, did the resource teachers get instructional materials for teachers and/or provide appropriate schedule modifications when necessary. Also assessed was whether resource teachers showed support of the instructional program with enthusiastic performance of their assigned responsibilities. Observations indicate that all teachers felt their needs were met in this area.

Provision for climate for improvement. The ASAP model did provide a system for resource teachers to focus in on problems encountered by classroom teachers. Unfortunately, the resource teachers rarely used the system to aggressively identify instructional problems and also failed to implement alternatives. As an example, except for general issues in student placement in academic groups, almost all of the problems attended to by the resource teachers were initiated by the classroom teacher. In these cases, the teacher would seek out the ASAP resource teacher and ask for assistance on a specific technical instructional/classroom issue. The resource teacher rarely attempted to identify classroom problems or the solutions during classroom visits.

One example helps document the above orientation. In this instance a regular classroom teacher was quite upset about a lesson. She was concerned about the performance of the low-functioning students placed in her group. She asked the resource teacher's advice on how to best modify instruction and although the resource teacher was supportive and did indeed try to help the teacher cope with her concern, it was mostly accomplished with statements such as "don't worry, the program is good," "all you have to do is present the material and the kids will pick it up."

Monitoring student progress. The dissatisfaction of the teachers served by the ASAP resource teachers was founded in the lack of precise, explicit technical assistance provided to them. Typically, help tended to be administrative.

An example from our observations will again serve to illustrate. Typically, when a DI resource teacher entered a classroom, she would check the work done by the students, noticing the type of errors which appeared on student papers. If these error patterns were consistent, the resource teacher would either immediately talk to the teacher or schedule a time to talk. What was fascinating when watching this resource teacher and the the teacher interacting was that in each case these discussions focused upon the student, curriculum, and the teacher, and how the instructional situation could be modified to accommodate each student in the group.

Monitoring teacher performance. The monitoring of specific teacher instructional activity is clearly a critical variable when low-performing students are placed in mainstreamed classrooms. The best chance for the successful accommodation of special education students would be developed if the resource teacher could track teacher behavior and provide feedback about critical instructional skills. This type of monitoring is at the core of successful program modification for the low- performing student (cf., Gersten, Walker, & Darch, 1986).

The findings from our observations provide an interesting contrast between the two resource teacher models. The DI resource teachers consistently focused on student performance issues. For example, these resource teachers often would ask: "How is Jerry (a child with problems in reading) doing on that reading unit?" "How is his independent seatwork coming along?" Often, a DI resource teacher would observe the target children herself, work in a reading or math group, or evaluate their seatwork. As can be easily noted, the DI resource teachers focused on important/relevant instructional issues often asked for by the classroom teachers.

Provision of specific, concrete technical assistance. The key to the successful placement of low-performing students into the regular classroom is: To what extent can a resource teacher provide the "nuts and bolts" of how to modify instruction to meet the needs of all the students in a classroom? As the interview data in Tables 1 and 2 show, differences between the resource teachers of the two models were significant.

Again, we present a vignette to illustrate our discussion. One afternoon, the ASAP resource teacher had a brief discussion with a first grade teacher regarding the performance of a skill-deficient student in her classroom. What transpired was similar to many subsequent interactions that were observed. First, the discussion dealt with paperwork, specifically about school policy regarding the appropriate method to fill out report cards. The resource teacher's suggestions were very general and provided the teacher with little or no guidance; her comments were: "Do the best you can," and "Make sure all students in your group are doing OK." As before, there was no real technical assistance given or methods to modify instruction to help this low-performing student.

As a point of contrast, the main thrust of most of the DI resource teachers was to provide explicit methods of instruction which were demonstrated to teachers and were discussed in terms of how the instructional modifications were closely tied to student achievement.

Conclusions

Clear and important differences emerged between the two models in areas closely tied to the ability of regular classroom teachers to maintain low-performing students in the classroom. The results have important implications for the development of consulting teacher models.

First, the DI teaching and supervision model emphasized many teaching techniques shown to be closely tied to increased student achievement. The DI resource teachers focused on developing correction procedures, adjusting the type and frequency of teacher questions, and the appropriate use of explicit instructions. Also, in spite of the group-instruction orientation in the regular classrooms, DI resource teachers were able to intercede with suggestions to help make the group- learning situation more interactive for the less-able students. Consequently, these teachers rated the technical assistance they received very useful. In contrast, the ASAP teachers were neutral in their overall assessment of the helpfulness and clarity of the technical assistance they received (see Tables 1 and 2). After recording an untold number of supervision encounters by both DI and ASAP supervisors and teachers, we felt it was the failure of ASAP resource teachers to make their classrooms more interactive for low-performing students which possibly emerged as their most significant shortcoming.

It should be noted that the training the DI resource teachers received was extensive. No consulting-teacher model can be effective in maintaining low performers in the regular classroom unless supervisors are able to consistently help teachers "manage" the difficult students. In the present study, it was the ability of the DI resource teachers to translate teacher-effectiveness literature concise, explicit procedures for the classroom teacher that teachers reacted to most positively. Needless to say, this consulting skill does not just develop, but is fostered from a model which trains the consulting resource teacher to: (a) identify academic problems of the low performer, (b) generate workable remedies for these problems, (c) be able to coach the classroom teacher, and (d) negotiate with the teacher on the actual

Continued on Page 12

Two Consulting Models—

Continued from Page 11

implementation of the specified remedy.

The DI model of supervision in this study is vastly different from traditional resource consultant models. First, the DI model is probably best characterized as proactive. Problems are identified, and specific alternative teaching strategies are quickly generated to help the regular teacher solve a problem. Low-performing students were able to remain in the instruction group. It was this proactive orientation which many of the teachers were most pleased about.

At the core of the DI model was the curriculum emphasis of classroom management. As discussed earlier, the DI resource teacher would clearly define student problems as curriculum problems. Thus defined, solutions were interpretable to the classroom teachers. It seemed to us that when the ASAP resource teachers discussed the specific problems of a low-performing student with a teacher, the cause of and solution to the problem remained unidentified. Clearly, this is not the stuff expert consultation is made of.

Leinhardt and Greeno (1986) have described the instructional techniques of certain expert teachers. In their words, expert teachers: "constructed their lessons around a core of activities, and. . .used efficient routines to make effective use of the time spent in guided or monitored practice." (p. 93) One major implication of the present study is that expert supervisors do very much like expert teachers: They provide explicit strategies for teachers on how to help maintain the lowest student to actively learn what is being taught.

References

Gersten, R., Carnine, D., & Green, S. (1982). The principal as instructional leader: A second look. *Educational Leadership, 40*, 47-50.

Gersten, R., Walker, H., & Darch, C. (in press). Relationship between teachers' effectiveness and their tolerance for handicapped students: An exploratory study. *Exceptional Children.*

Leinhardt, G., & Greeno, J. (1986). The cognitive skill of teaching. *Journal of Educational Psychology, 78*, 75-95.

Miles, M. B., & Huberman, M. (1984). Drawing valid meaning from qualitative data: Toward a shared craft. *Educational Researcher, 13*, 20-30.

Reynolds, M., Wang, M., & Walberg, H. (1987). The necessary restructuring of special and regular education. *Exceptional Children, 53*, 391-398.

Will, M. (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children, 52*, 411-415.

DI Returns to Peru—

Doug and Linda Carnine made presentations at San Augustin University in Arequipa, Peru after Doug gave an invited address to the International Behavioral Psychology Conference. An enthusiastic group at the University is planning the initial stages of a Peruvian Direct Instruction program. Doug presented to a group of over 400 professors and students on the DI Model and Instructional Design. He included demonstrations of the Systems Impact videodisc programs in the Design lecture.

The Carnines also conducted a three hour workshop for about 40 participants from the larger cities in Peru on DI Reading. Professors Cuentas, who organized the International Conference, will meet with a subgroup of teachers, school psychologists, and graduate students to begin working on Spanish DI reading materials.

The Carnines hope to facilitate their efforts by providing stateside approaches using DI methods to teach reading in Spanish if they can be found, and by making appropriate texts available. Any Spanish speaking DI experts or others interested in helping with the program should contact Doug or Linda Carnine in care of ADI. They could help in reviewing tapes or lessons, and possibly travel to Peru to conduct training. Trainers would stay with University faculty families.

In 1981, the year ADI was founded, Wes Becker visited the International Conference on Behavioral Approaches in Psychology and Education in Lima, Peru. After his visit, Dr. Liliana Mayo, who runs a school for retarded children just outside of Lima, came to the Eugene ADI Conference and was our guest speaker at the first annual ADI meeting. She received a standing ovation for her presentation on the work going on in her school.

14th Annual Eugene DI Conference
August 1-5, 1987,
Eugene, Oregon

Join the Association for Direct Instruction

Membership Options:

A) Regular Membership..... $15.00 per year (includes one year of DI NEWS and a 20% discount on ADI sponsered items and events).
B) Student Membership..... $7.00 per year (includes one year of DI NEWS, a 40% discount on ADI sponsered events and a 20% discount on publications sold by ADI).
C) Sustaining Membership..... $30.00 or more per year (includes regular membership privileges and recognition of your support in the DI NEWS).
D) Institutional Membership..... $50.00 per year (includes 5 subscriptions to the DI NEWS and membership privileges for 5 staff people).
E) DI NEWS subscription only..... $5.00 per year (outside of North America and Hawaii $10.00 per year).

ADI sponsored products and events include books and other materials published or marketed by the Association. The DI NEWS is published 4 times a year (Fall, Winter, Spring, Summer).

To join the Assocation, complete the lower portion of this form and mail it, with your check in U.S. funds to:

Association for Direct Instruction
P.O. Box 10252
Eugene, OR. 97440

Check one:
I wish to become an Association member. Please enroll me as a:
___ Regular Member ($15.00 annually)
___ Student Member ($7.00 annually)
___ Sustaining Member ($30.00 or more annually) *
___ Institutional Membership ($50.00 annually)
___ I wish to subscribe to the DI NEWS only ($5.00 annually; $10.00 outside North America & Hawaii)

NAME_____

ADDRESS_____

CITY_____ ST_____ ZIP_____

* As a Sustaining Member, I grant permission for my name to be used in the DI NEWS. SIGN_____

ADI MATERIALS PRICE LIST

Theory of Instruction
By Siegfried Engelmann & Douglas Carnine
Membership Price **$20.00** List Price **$25.00**

Direct Instruction Reading
By Douglas Carnine & Jerry Silbert
Membership Price **$24.00** List Price **$30.00**

Direct Instruction Mathematics
By Douglas Carnine, Marcy Stein & Jerry Silbert
Membership Price **$24.00** List Price **$30.00**

Teach Your Child To Read in 100 Easy Lessons
By Siegfried Engelmann, Phyllis Haddox & Elaine Brunner
Membership Price **$12.00** List Price **$15.00**

Generalized Compliance Training
By Siegfried Engelmann & Geoff Colvin
Membership Price **$16.00** List Price **$20.00**

Structuring Classrooms for Academic Success
By Stan Paine, J. Radicchi, L. Rosellini, L. Deutchman, C. Darch
Membership Price **$8.00** List Price **$10.00**

Members of the Association for Direct Instruction may purchase copies of the materials listed above at the Membership price. Shipping charges are $1.50 per book for 1-5 books and $1.00 per book for orders of 6 or more. Orders are to be paid in U. S. Funds, in advance. Purchase orders are also accepted. Please allow 4 weeks for delivery.

ADI cannot provide copies for entire classes nor can we provide desk copies. All such requests must be made to the publisher of the specific book.

SEND YOUR CHECK OR PURCHASE ORDER TO:

ADI
Association for Direct Instruction
P.O. Box 10252
Eugene, Oregon 97440
(503) 485-1293