Why Attend The
Eighth Annual DI Conference?

By Ziggy Engelmann

August in Eugene is unpredictable, sometimes it is hot and dry — very hot, sometimes it is cool and rainy. Sometimes, it is a mix of warm clear days and rainy cold days. The most predominant memory I have of summer 1975 was that it was hot. I remember the weather clearly, because we had arranged for the first Annual DI Instructional Conference to be held in a high school that had no windows. We listened to the weather forecasts religiously because we knew that the high school was like a giant greenhouse, with large windows that collected sunlight and raised the inside temperature in the far mlrve of the comfort zone. We hoped that the hot weather would break, but it didn’t. The teachers reminded the nearly 500 participants perspired; and everybody complained about the heat. But before the Conference was over, we knew that it was more than a success. It was a service that would be very hard to provide either through straight college-type training, through in-service as it is normally set up, or through a two-day workshop. In fact, we didn’t originally conceive of the Conference as an annual affair. That decision came after the Conference and their evaluation of that session. They attended, and discounting the complaints about the physical facility), but it was highly regarded. To everyone that attended the Conference, it was an annual opportunity to learn about the instructional material, and the people being trained were new to DI, which meant that there wasn’t anybody in the group who could confirm that “it works.” Finally, the trainers were alone, and often one trainer worked with a group of participants.

Over the years, we’ve tried to maintain high standards and to keep the Summer Conference that was established that first year. We’ve tried to keep the Conference so that it was a big reinforcement, both for participants and for trainers. The attendance at the Conference grew to a high of about 500 participants in 1978, and then dropping somewhat as districts’ funding tightened up. The attendance for the 1981 Conference, was a respectable 350.

The format of the DI Conference is so different from that of other Conferences that when I attend something like the CEC Conference, I find myself shaking my head and asking, “What is this conference going to do except confuse the participants?” But unfortunately, many participants are not at the conference to learn, but simply to attend. They walk out of the middle of sessions, scrupulously avoid discussions that attempt to provide useful, technical information, and try to see how many pounds of handout material they can collect during their two or three hour sojourn.

The Summer Conference in 1975 was different, and those that followed have remained different. A trainer has adequate time to lay a thorough foundation of practice and rationale. Many participants who attend the Conference are not new to DI Instructional. Some of them have impressive data on student performance and are very knowledgeable about the instructional material. These people serve as helpful adjuncts to the trainers’ efforts, not only because they have credibility, but also because they have experienced the same kinds of skepticism felt by the people who are being exposed to Direct Instruction. But when they interact with the newcomers, they present a very powerful perspective. Finally, a trainer is not alone. During that first Conference, six trainers presented. It was something of an all-star crew that included Wes Becker, Phyllis Haddox, Doug and Linda Carnine, Gary Johnson, Jean Osborn, and Randy Splick. Individually, each of these trainers is dynamic and effective. When they were combined in the Summer Conference, they formed a team that was something that made all of us feel very proud. We used the best trainers that we had available in 1975, which was possible because all the trainers were in Eugene during August, before leaving on their punishing travel schedule that typically began the day after Summer Conference.

(Continued on page 20)

A Study of 4th-6th Grade Basal Reading Series*

By Ziggy Engelmann

As part of the development of the Direct Instruction reading programs for grades 4, 5, and 6, we did a rather elaborate study to gain more precise information about teacher behavior and how teacher behavior relates to the ideal. The design of the experiment was basically simple. We first analyzed the major basal reading programs that are used in grades 4 through 6 — Ginn, Scott Foresman, Houghton Mifflin, and Holt. When we analyzed the programs, we considered the clarity of the communication that was provided, the adequacy of the practice, and other aspects that should be controlled by an effective program. Next, we interviewed the 17 teachers who participated in the study. We provided them with no information about the nature of the study. (They knew only that they would receive some free material for participating.) Their participation involved answering questions during two taped interviews and video taping two lessons in the reading program. They were told that they would be taped teaching a main idea lesson and another lesson (whether lesson came up during the time scheduled for the testing). The teachers were selected from various regions of the United States, from Bridgeport, Connecticut, to Eugene, Oregon.

After the students received a lesson, they received a simple test of the material that the teacher had just covered. There were no trick items, no extensions of concepts, and basically nothing more than what the teacher had just taught. The test was sufficiently long to provide a reasonable sample of each student’s understanding.

With the information from the analysis of the program, the teacher interview, the record of the teacher’s teaching, and the student outcomes, we had the information needed to perform a rather thorough analysis that we felt would answer the following questions:

1. Based strictly on an analysis of the program material, how well would the program be predicted to teach the average student?

2. How much do teachers actually deviate from the specifications of the basal programs, and if they do deviate, to what extent do these deviations facilitate communication? (In other words, how much better do the teachers teach than they would if they followed the program to the last detail?)

3. How well do students perform in response to the instruction that the teachers actually provide?

4. How do the facts about the teacher’s instructional program, the teacher’s actual teaching behavior, and the actual student outcomes relate to the teacher’s verbal descriptions of these areas? (Are teachers accurate and knowledgeable about the details of their programs? Do they know specifically

*This project was conducted by Engelmann-Becker Corporation and coordinated by Don Studio.

Ziggy Engelmann
Dear Editors:

I just received my copy of Direct Instruction News in the mail through the courtesy of SRA. I am currently principal and one of the teachers of the Shanghai American School, located in Shanghai, People's Republic of China. We have an enrollment of 12 students at the current time, all of whom are English speaking, ex-patriot type of people. I am currently using the Distant Arithmetic, Language, and Reading programs for my Kindergarten class.

Previous to coming to Shanghai, I taught in Murrellsboro, North Carolina, and Eugene, Oregon. I became acquainted with direct instruction while working as an Instructional Aide for Title I in Eugene.

I am pleased to see that an association has been formed to help those of us who are using the methods in contact with each other and to let us know about other publications that are available on the subject. I find the philosophy behind Direct Instruction is the most compatible educational philosophy to my way of thinking and reaching.

Catherine L. Schroeder
Shanghai American School
People's Republic of China

A Call for Creative Contestants: Design a DI Logo

Have you ever wondered how (or whether) creativity and artistic flair fit into a highly structured educational program? If so, you might want to consider entering the Association for Direct Instruction's first creativity competition. We are on the lam, looking for a logo.

Webster's New World Dictionary defines "logo," from the word "logogram," as "a letter, characteristic symbol used to represent an entire word." In our case, we need a letter (or combination of letters, such as a character, charcham) to represent "Association for Direct Instruction" on headrest stationery, on the masthead of the DI News, and in other ways.

Engelmann immediately offers that we were looking for a character, but it wasn't quite what we had in mind. Another volunteer began the name of the organization to ADI International, which reflects the involvement of the members from Canada, Mexico, England, and several other countries outside of the United States. Finally, an acronym for the group would then be ADI (pronounced A DEY EYES).

The appropriate logo to accompany this acronym would obviously be a cluster of forty children's faces with "eighty eyes" staring up at you from the corner of the page — clever, but perhaps a little too subtle. And so, with Engelmann and the children's faces rejected, the competition remains open.

Send us your idea for an ADI logo in any graphic medium you feel comfortable working in — art, ceramics, woodcut, stone, fabric, clay, paper, etc. Please accompany your entry with a brief (i.e., one paragraph) written description of the relationship you see between your design and the goal of the organization. The winner will be selected by the judges on the November 15, 1982, issue of the DI News. Submit your entry to: Stan Paine, Co-Editor, Direct Instruction News, P.O. Box 10251, Eugene, OR 97440. Thank you for any help you can lend.

Tell Us Why You Use DI Programs

A Reader Survey

The DI News will, from time to time, present surveys or questionnaires for consideration by the readers. In the following issue, we will publish the results of the survey. Think of how foolish we would look — and how uninteresting it would be to read — if no one responded to the survey. Therefore, as a sign of good faith, we respectfully ask you — if you anticipate reading the results of the survey in the next issue — to be one of those who responds to it. Please send your reply to Stan Paine, Survey Editor, Direct Instruction News, Follow Through/ Education, University of Oregon, Eugene, OR 97403.

The question addressed in this survey is an important one. We are interested in one of the following two items (whichever best fits your perspective):

A. The reason(s) I use direct instructional programs is (are)...
B. The reason(s) I support/promote direct instruction in other ways than using DI programs is (are)...

Please state your answer(s) as clearly and concisely as possible. Please postmark your reply no later than May 15, 1982, to enable us to compute the answers before the next issue of the DI News goes to press. You need not sign your name to your answer if you do not wish to do so, but we do ask that you provide us with your pieces of information: (1) your gender (M or F); (2) your title or occupation (teacher, adminįstrator, trainer, supervisor, researcher); (3) the size of program you work in (an indication of whether it is rural, small town, urban, suburban, or inner-city); and (4) the number of years you have used direct instruction (counting the present school year). You can provide the information in coded form to save space. For example, (1/2/1/1) would be a male teacher working in a small or medium-sized city, and in his third year of using direct instruction.

The most valuable aspect of conducting this survey is likely to be that it will provide us (and you) with a comprehensivé list of reasons for using direct instruction. It will provide a wide range of rationales which advocates of direct instruction can use in explaining this work to others. We look forward to your reply.

Employment Exchange

As a service to our readers, we would like to publish notices of positions available, positions wanted, and job exchange opportunities in each issue of the News. To do so, however, we need information which you, the reader, or your colleagues, can provide for us. This is one feature of the News for which we rely on the contributions of our readers. If you want to hire someone, but you want to make sure they have direct instruction background or if you are frustrated about your efforts to use direct instruction in your present position and are looking for a support-
What Can Be Done in Five Years?

Making Moderately Retarded Children Learners – Five Year Study by Alan Booth, Don Hewitt, Warren Jenkins, and Alex Maggs

Reported by Wes Becker from his personal visit and the published report in the Australian Journal of Mental Retardation (1979, 9, pp. 287-90).

On my visit to Australia in September, 1980, I visited Kurrumbee School for moderately retarded children (IQ’s 35-50). I was struck by the contrast between the children's progress when only the principal (Alan Booth) rounded up those children in need of instruction to develop them. To make such children with little facility for learning is to foster learning. I realized that the children who entered the school at the age of 7 years were, indeed, handicapped. They knew very little about the world outside their classrooms. They had no interest in learning, and they cared about learning to be smart.

This study focuses on 12 children, mainly with IQ's in the low 40's at the start, who were involved in DISTAR Language and Reading for four to five years. The DISTAR Language program started in 1974, after Maggs and Monath had demonstrated the effectiveness with institutionalized retarded children (see related article). The DISTAR Reading program was added in mid-1979. At the start of the project, the children's ages ranged from 8 to 14 years (averaging about 10). There were seven boys and five girls.

The children were given the Peabody Picture Vocabulary Test (PPVT) at the end of each year. The DISTAR Mastery Tests in Reading and Language were administered throughout. The Bailey Language Ability Test, the Neale Analogue Reading Ability Test, and the Schonell Word Recognition Test for both groups were monitored at least once a year to ensure that they were applying the appropriate instructional procedures for their group. Videotapes were made of the teaching and analyzed to gain evidence for validity of program implementation.

A battery of tests was given before and after the two years of instruction by three independent testers, who were not familiar with the program objectives. The tests included Engelmann's Basic Concept Inventory, the Reynell Verbal Comprehension Test, the Stanford-Binet (L-M) Intelligence Test, Flanagan's tests of Class Inclusion and Serialiation, and Bruner's Matrix test.

The results of this study are summarized in Table 1. The results show the DISTAR group to have gained significantly more than the control groups on every measure of cognitive functioning. The last line in the table (Omega Squared) gives the percent of total variance that can be attributed to experimental treatment effects. The size of these effects implies an extremely powerful treatment. The amount of the Stanford-Binet IQ test is most readily interpreted. The DISTAR Language group gained 22.5 months in mental age in 24 calendar months. This growth is nearly a normal (average) growth in mental age. The Peabody Language group gained 7.6 months in mental age in 24 calendar months. This growth is exactly what was expected of children with IQ's averaging in the lower 30's.

These findings imply that much more can be done with moderately and severely retarded children than has been assumed in the past. They raise critical questions about using labels such as educable and trainable. In a companion article on this page, we look at the application of DISTAR methods in Reading and Language over a four-to-five year period to moderately retarded children.

Table 1

<table>
<thead>
<tr>
<th>Group</th>
<th>Basic Concept Inventory</th>
<th>Reynell Verbal Comprehension Test in Mental Age Months</th>
<th>Stanford-Binet IQ in Mental Age Months</th>
<th>Sensation (Total Score)</th>
<th>Class Inclusion (Total Score)</th>
<th>Omega Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTAR GROUPS (N=14)</td>
<td>12.0</td>
<td>17.1</td>
<td>22.5</td>
<td>2.9</td>
<td>2.3</td>
<td>2.9</td>
</tr>
<tr>
<td>PEARMAN GROUPS (N=14)</td>
<td>3.4</td>
<td>6.9</td>
<td>5.2</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Mean</td>
<td>3.1</td>
<td>6.0</td>
<td>7.8</td>
<td>1.2</td>
<td>.6</td>
<td>.4</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>3.8</td>
<td>4.2</td>
<td>4.4</td>
<td>1.2</td>
<td>.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Significance of Difference</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
</tr>
</tbody>
</table>

The children of Kurrumbee School and their principal showing Dr. Becker what they can do.

The results prior to the study, the children were progressing at a rate of about two months in language age for each five calendar months. This is the expectation for children with IQ's in the low 40's. The children could not read and had weak language comprehension and production skills. During the study, the children received instruction for 8 months a year for five years in DISTAR Language and for four years in DISTAR Reading. They showed 34 months gain in language age on the PPVT, averaging 8.2 years at the end (an average expected of early third graders). On the Neale Analysis of Reading Test, they averaged 7.8 years in Accuracy and 7.6 years in Comprehension. On the Schonell Word Reading Test, they averaged 7.5 years. The average reading grade equivalent was estimated to be 3.1 years. Five of the children had IQ's which had moved from the low 40's to the low 70's. The children were into level 3 Reading and Language. They were reading and understanding what they were reading. The results on the Bailey are more difficult to interpret without listing each of the 66 skills. However, when compared to normal children (up to and including third and fourth graders), they showed a higher percentage of skill mastery on 31 of the 66 objectives.

The major implication of this study is that "trainables" can be educated in basic language and reading skills. It takes time and effort, but with a Direct Instruction approach, it can be done. The authors of this report also noted that with systematic programs such as those designed by Siegfried Engelmann, there are a number of practical advantages for school management:

1. Despite a constant turnover of staff at various points in the year, the programs sustain continuity for the student.
2. For the new teacher, the programs provide guidance on where the children have been and where to go next.
3. For the teacher-supervisor, the programs lead to meaningful task-directed in-service activities.
4. The vertical progression in language skills was most beneficial.

The programs keep building skills in classification, comparison, description, verb tense, definition, synonyms and antonyms, opposition, problem solving, deductions, absurdist, etc. This kind of systematic building is lacking in most other programs.
Figure 1. Four Areas of Investigation

<table>
<thead>
<tr>
<th>Instructional programs (Analysis of program)</th>
<th>Teacher's virtual behavior (Taped Interviews)</th>
<th>Teacher's actual behavior (Video taped lessons)</th>
<th>Student outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1
Program Analysis Results Across Programs

<table>
<thead>
<tr>
<th>Means Across Program</th>
<th>Ideal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Percentage of examples taught</td>
<td>14</td>
</tr>
<tr>
<td>2. Percentage of questions ambiguous and not taught</td>
<td>88</td>
</tr>
<tr>
<td>3. Percentage of questions that were misleading and wrong</td>
<td>12</td>
</tr>
<tr>
<td>4. Percentage of minimum discrimination not taught</td>
<td>5</td>
</tr>
<tr>
<td>5. Percentage of variation in teacher presentation wording</td>
<td>14</td>
</tr>
<tr>
<td>6. Percentage of variation in student workbook wording</td>
<td>44</td>
</tr>
<tr>
<td>7. Percentage of variation in teacher presentation wording</td>
<td>18</td>
</tr>
<tr>
<td>8. Percentage of questions relevant to concept, teacher presentation</td>
<td>62</td>
</tr>
<tr>
<td>9. Percentage of questions relevant to concept, student workbook</td>
<td>75</td>
</tr>
<tr>
<td>10. Percentage of probability of correct interpretation</td>
<td>13</td>
</tr>
<tr>
<td>11. Percentage of response variation</td>
<td>13</td>
</tr>
<tr>
<td>12. Percentage of visual distinction, student workbook</td>
<td>25</td>
</tr>
<tr>
<td>13. Percentage of number of student examples, teacher presentation, student workbook</td>
<td>31</td>
</tr>
<tr>
<td>14. Percentage of strength of teacher presentation responses</td>
<td>89</td>
</tr>
<tr>
<td>15. Percentage of strength of student workbook responses</td>
<td>72</td>
</tr>
<tr>
<td>16. Percentage of prompt, teacher presentation</td>
<td>27</td>
</tr>
<tr>
<td>17. Percentage of prompt, student workbook</td>
<td>49</td>
</tr>
<tr>
<td>18. Days since two examples were presented</td>
<td>62</td>
</tr>
<tr>
<td>19. Total number of examples in program</td>
<td>66</td>
</tr>
<tr>
<td>20. Number of student examples on same day as teacher material</td>
<td>9</td>
</tr>
<tr>
<td>21. Percent of student examples on same day as teacher material</td>
<td>14</td>
</tr>
<tr>
<td>22. Total number of lessons</td>
<td>22</td>
</tr>
<tr>
<td>23. Percent of examples for which correction is specified</td>
<td>100</td>
</tr>
</tbody>
</table>

Friday, it's a fact that it is Friday. It is further a fact that in John's opinion, it is Friday. The material provided by the teacher makes the point that he, and they, may make these distinctions. Instead, it suggests that if anything is an opinion, it is not a fact.

How the Teachers Teach

The programs are basically incapable of teaching the average student, but possibly the teachers embellish these programs with good teaching that makes them work for the students. Certainly, we've all heard talk from teachers about how they don't follow the program and how their instruction is good. The teachers said as much. They were given the same kind of information from the teacher interviews, where the teachers indicated that they deviated from the program specifications about 20% of the time.

Probably the most interesting fact about the performance of the teachers in the study was that not one teacher deviated in any way from the specifications for the primary part of the lesson. Teachers sometimes didn't do the enrichment or additional activities provided by the teacher's guide, but followed the lessons precisely. Note that they were given no instructions about how to present other than, "Just present the lesson the way you normally would." The results of the teacher evaluations were analyzed two ways — they were first analyzed without referring to the instructional program and then compared with the specifications provided by the program.

The teaching provided by the teachers (regardless of the program used) was not sound from a technical standpoint. The following is a brief profile of how the average teacher in the study taught:

- The maximum rate of the teachers' presentation produced an average of 4.2 responses per minute. On student-reading tasks, the maximum rate was slightly higher — 4.6 responses per minute.
- The teachers presented 84% of the tasks to individuals and 16% to the group.
- The teachers gave the answer to 34% of the tasks, either by responding with the students by modelling the answer.
- The teachers praised nearly half of the correct student responses (46%). Most praise was directed to incorrect responses (49%), only 2% was behavior-specific praise, rather than general praise.

Table 2 compares the average teaching behaviors with ideal teaching. As with the previous results, the teachers followed the specifications that were provided by the programs they used. If we compare their teaching with the teaching that would have resulted if the program were presented by some kind of recording device, we notice some differences. However, these differences are caused by one problem — student mistakes. The average average of these mistakes, and when they did, it
### Table 2
Teacher Behavior Data Across Programs

<table>
<thead>
<tr>
<th>Grand Mean</th>
<th>Ideal</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>10-12</td>
</tr>
<tr>
<td>16</td>
<td>25-60</td>
</tr>
<tr>
<td>84</td>
<td>40-75</td>
</tr>
<tr>
<td>37</td>
<td>100</td>
</tr>
<tr>
<td>59</td>
<td>10-100</td>
</tr>
<tr>
<td>20</td>
<td>0-20</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>34</td>
<td>0-20</td>
</tr>
<tr>
<td>44</td>
<td>0-10</td>
</tr>
<tr>
<td>2</td>
<td>15-30</td>
</tr>
<tr>
<td>46</td>
<td>15-25</td>
</tr>
</tbody>
</table>

### Table 3
Average Teacher Behavior and Average Program Specifications

- **Total number of questions asked in the program lesson**: 8
- **Total number of questions asked by the teacher**: 20
- **Percent more teacher questions over program questions**: 251%
- **Percent of program questions that were ambiguous or misleading**: 42%
- **Percent of teacher questions that were ambiguous or misleading**: 40%
- **Percent of program questions that were relevant to the topic**: 69%
- **Percent of teacher questions that were relevant to the topic**: 24%
- **Student correct interpretation probability from the program**: 22%
- **Student correct interpretation probability from the teacher**: 27%
- **Strength of student responses from program questions**: 78%
- **Strength of student responses from teacher questions**: 77%
- **Percent of prompted responses in the program**: 12%
- **Percent of prompted responses from the teacher**: 22%

### Table 4
Mean Percent At or Above Different Criterion Percent

<table>
<thead>
<tr>
<th>Topic</th>
<th>90% correct</th>
<th>75% correct</th>
<th>50% correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Idea</td>
<td>28%</td>
<td>33%</td>
<td>58%</td>
</tr>
<tr>
<td>Key Words</td>
<td>8%</td>
<td>32%</td>
<td>65%</td>
</tr>
<tr>
<td>Map Skills</td>
<td>30%</td>
<td>33%</td>
<td>36%</td>
</tr>
<tr>
<td>Inferences</td>
<td>15%</td>
<td>30%</td>
<td>62%</td>
</tr>
<tr>
<td>Context Clues</td>
<td>0%</td>
<td>0%</td>
<td>15%</td>
</tr>
<tr>
<td>Relevant Details</td>
<td>24%</td>
<td>82%</td>
<td>99%</td>
</tr>
<tr>
<td>Cause Effect</td>
<td>10%</td>
<td>30%</td>
<td>60%</td>
</tr>
<tr>
<td>Fact/Opinion</td>
<td>0%</td>
<td>25%</td>
<td>70%</td>
</tr>
<tr>
<td>Means across all topics</td>
<td>12%</td>
<td>30%</td>
<td>55%</td>
</tr>
</tbody>
</table>

### Table 5
Teacher Reports on Main Idea and Student Performance

- **T**: What percent of the students should master any skill?
  - 86%
- **S**: Percent of students at 50% criterion on all topics.
  - 12%
  - 30%
- **T**: What percent of the students could do the work book exercises after the lesson was tayed?
  - 72%
- **S**: Percent of students at 90% criterion level on all topics.
  - 12%
- **T**: What percent of the students need more practice on the topic taught?
  - 58%
  - 70%
- **S**: Percent of students below 75% criterion level on all topics.
  - 20%
- **T**: How much practice do they need?
  - 2 week
  - 55%
- **S**: Percent of students below 50% criterion level on all topics.
  - 50%
- **T**: What percent of the students master main idea?
  - 56%
- **S**: Percent of students at 75% criterion on main idea.
  - 10%
  - 33%
- **T**: What percent of the students remain unchanged?
  - 40%
- **S**: Percent of students below 75% criterion on main idea.
  - 67%
- **T**: How deficient is the program for teaching students the main idea?
  - 16%
- **S**: Percent of students below 75% criterion on main idea.
  - 67%

**DIRECT INSTRUCTION NEWS, SPRING, 1988**
Teaching Three- and Four-Year Olds in a Structured Education Program

By Barbara E. Anderson

(Editors' Note: The following is the abstract of a thesis submitted to the University of Utah for the degree of Master of Science, in June, 1971. We have edited the presentation of data some to make it more readable. The study was conducted at Earth Reid's Experimental Center for Reading Instruction. The old five-year-old setup is kept current. We appreciate Barbara sending this abstract to us.)

This study was designed to determine at what age children should be formally taught academic material in a structured school program. It was also designed to give Granite School District information on which to confidently base future decisions about early childhood programs. Finally, it was designed to demonstrate teaching techniques in working with three, four, and five-year old children.

During the first year (1968-69), the program involved 120 children (two classes of three-year-olds and three classes of four-year-olds). Of the 120 subjects in the first year, 87 remained at the end of the second year. Five-year-old children, the regular kindergarten children at an elementary school in Granite School District, were added to the study the second year (1969-70). They were instructed with the same materials and methods used with the original three- and four-year-old children. A randomly selected control group consisted of their regular kindergarten children at an elementary school in Granite District. The random selection was made from among schools rated at the same socioeconomic status as the experimental group.

The three- and four-year-old children were selected on a "first come, first serve" voluntary basis on the part of the parents. An announcement of the program was made by letter to parents in Granite School District and by two daily newspaper articles.

Upon entrance into the program the three- and four-year-olds were given the Peabody Picture Vocabulary Test (1965 Ed.). Scores ranged from a low of 59 to a high of 138 (mean about 106). The children were taught reading, arithmetic, and language, using the Steck-Vaillant materials. A music program, using Threshold to Music Materials (Reaver Publishers), a concept development program, and an art program developed by staff members were also used with the children. The children attended school three hours a day, five days a week.

The five-year-old experimental subject scores were given the PVT on entrance to assess mental ability. Scores ranged from a low of 81 to a high of 134; the IQ's of the five-year-old controls ranged from a low of 81 to a high of 134. The mean of both groups was 107.

The instructional program for the five-year-old control group was not prescribed. The teachers taught the way they thought best. This study does not examine curriculum program, or method of instruction for the control group. Their instruction included reading readiness, reading activities, and math. There was a time for creative play, records and singing, games, educational TV, and a recess. The children were taught as a group with one teacher instructing them. There was more freedom for choice of activity or inactivity in this program and there were differences between groups in instructional settings, as well as in sequence of experiences.

Results of this study show that there was a significant (4 point) increase in the Mean I.Q. of the Experimental Five-Year-Olds after one year in the program where the structured academic program had been used. There was no significant increase in the Mean I.Q. of the Experimental Three-Year-Olds, Experimental Four-Year-Olds, or the Five-Year-Old Control group after one year in the program. After two years in the program there was a highly significant increase in I.Q. for children who had begun in the experimental at three-year-old (105 to 111) and as four-year-olds (106 to 117).

All subjects were assessed upon entrance and after one year in the program on the Murphy-Starrrell Reading Readiness Test, and on the Wide Range Tests for reading, spelling, and arithmetic. The experimental three- and four-year-old were also assessed for these skills after two years in the program.

When comparing each group's performance after one year, the Experimental Five-Year-Olds scored significantly better in Reading Readiness, Reading, and Spelling than the Experimental Three-Year-Olds. The Experimental Four-Year-Olds also scored significantly better in Reading Readiness and Reading than the Experimental Three-Year-Olds; the Control-Five Year-Olds scored significantly better in Reading Readiness and Reading than the Experimental Three-Year-Olds; and the Experimental Five-Year-Olds scored significantly better in Reading Readiness and Reading than the Control Five-Year-Olds. The experimental children scored significantly better in arithmetic than the Experimental Five-Year-Old Control group (see Table 2).

These data show that with Distor programs for three- and four-year-old children, significantly greater increases in academic skills take place after two years in the program than when the gains made by five-year-old children in the regular kindergarten program. Also, significant increases in the Mean I.Q. are evident for five-year-old children after one year in a structured academic program, and for three- and four-year-olds after two years in a structured academic program.

Editorial Comments. The data in Table 1 imply that while the children made good progress, the programs were not notably taught to three-year-olds. Table 2 shows that after two years of instruction, one-year-old starting children do no better than five-year-olds with one year of Distor, although they are six years younger and could therefore leave kindergarten more advanced than the five-year-olds. These findings are consistent with our later experiences. Starting earlier may lead to further advancement, but may not be cost-effective. (W.C. Becker)

### Table 1

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### Table 2

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(Continued on page 7)
Maximizing Student Progress

by Linda Carline

The workloads of school administrators typically require them to react to issues which arise in their schools rather than to plan and provocative about student learning. Even an administrator who has set a goal of frequently checking student progress is often kept from doing so by meetings, parent visits, discipline problems, scheduling problems, and maintenance problems. The list seems endless once the days begin. In addition, current economic conditions seem to work against our goal of providing educational excellence in our schools. How can an administrator effectively monitor student progress and teacher performance in a time-efficient and cost-efficient manner?

Student progress in Direct Instruction programs is particularly well-suited to evaluation through the monitoring of four main tables: daily day progress, time-on-task, percentage of correct responses on worksheets, and performance on criterion-referenced mastery tests.

Lesson day progress. Direct Instruction programs are broken down into lesson days. Each instructional day, an appropriately placed group of students should cover one lesson. Some lower-performing students may cover less than this; at times, higher-performers will cover more. There should be a close correspondence between the number of days in school and the number of lessons covered by a majority of the students in any Direct Instruction program. A quarterly gathering of lesson day information is one means by which an administrator may gain a reading on student performance. Recommended checkpoints are late October, mid-December, mid-February, and mid-March, and the end of the school year.

Time-on-task. By making classroom observations, two other sources of data can provide valuable information about how well students are progressing. The first of these relates to time-on-task. One means for gathering such data is to take a time sample. While observing small- or large-group instruction, select three to five students and observe them in turn for 5 seconds each. Continue observing in rotation for 3 to 10 minutes. If the student is "on task" during the whole 5 seconds, record a plus (+). If the student is "off-task" for any part of the time (not attending to what the teacher is demonstrating; answering questions; reading; doing independent work). A percentage of the time-on-task. The same procedure can be followed for students doing independent work. A percentage of 90 for teacher-directed work and 75 for student worked is excellent.

Unfortunately, such a short sample of classroom behavior will not necessarily give you an accurate picture of the classroom progress. It is just a snapshot. If your visits into the classroom are infrequent, the students' behavior will tend to look very good; if your visits are more frequent, you are likely to get a more representative picture.

Response accuracy. It is important to couple time samplings with a check on students' independent work performance. Students are answering questions. In a workbook, working computational problems in arithmetic, writing spelling words, etc., they should be performing at 80-95 percent accuracy level. If the students are remedial, this probably needs to be even better. If you are reading material silently, have them read aloud to you in a quiet voice. The same accuracy information is applicable, i.e., a student should be able to read the material orally, unpracticed, at a 90-95 percent accuracy level. A level that cannot be relatively easy to identify. It is a good idea to ask the teacher about the variance whose levels are lower because the teacher may have valuable information about why they are so.

Test performance. Data on time-on-task and accuracy on independent work will enable you to arrive at a fairly accurate reading of student performance within a specific classroom in a short time period. Nevertheless, as most administrators are aware, it is difficult to get into classrooms as frequently as we would like. Therefore, another source of information about student performance is the tests, and the accuracy levels on criterion-referenced tests that are specifically designed to accompany Direct Instruction programs published by SRA. Requesting criterion-referenced test data from teachers wherever they may be, and making sure you have good means for getting a reading on students' performance. Again, these scores should be included in your evaluation of the students are making satisfactory progress

While data collected more frequently than suggested here would allow more responsive monitoring of student and teacher needs, time and personnel resources usually will not permit this. However, some schools have been able to afford trained aides or volunteers to help collect and summarize data on student performance. More typically, with this four-step procedure principals and teachers are able to collect the information themselves.

Even in a time of shrinking resources, it is possible to work toward maximizing student performance through careful monitoring of progress. Good and bad data in your efforts to "do more with less" for your students and teachers.

DI Preschools

Please Help

Do you use DI in a Preschool? Paul Weissberg wants to find out about the scope and extent of use of Direct Instruction preschools around the country. If you know of a Head Start, day care, or special school that uses DI please contact Paul either by calling (203) 348-5085 or (5553) or by writing P.O. Box 2982, Department of Psychology, University of Alabama, Alabama, AL 35484.

DI DIRECT INSTRUCTION NEWS, SPRING, 1988

Linda Carline

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Seat Work (Coast from page 6)

vest the problem of students playing with the tokens rather than working. The Seating Card is used to record the number of tokens at least 3 in a 20-minute period. The reinforcement can be an activity such as a classroom game, free recess, or a tangible reward like a sticker.

Remember to ignore behavior which is incompatible with your seatwork rules. (Don't skip this step. It is important and takes an incredible amount of concentration to accomplish this task correctly!) Mentally, see yourself ignoring a student who is talking. Use that technique as your cue to praise a student who is working. Your praise will be more powerful if you praise the student seated nearest to you who is not following the rules. Be sure to praise the specific behavior you want to increase. Continue in this manner until the target student is working appropriately. Then immediately praise that student for the correct behavior. "Molly, you're working quietly! That's how to earn a chip!" Praise target students frequently to ensure that they see the value of learning the seatwork rules.

Role-play a variety of situations ahead of time so that you are prepared to deal with these behaviors when you are with your class. Try not to miss an opportunity to praise. When starting a new routine, the praise rate should be relatively high.

Finally, don't give up or slip into paying attention to students who are not following the rules. Stick with the praise. It will produce a more positive atmosphere in your classroom. Your students will gain self-confidence and will learn excellent study habits.

Here are some possible scripts and a procedure for teaching seatwork skills.

"Everyone, we are starting something new. You can earn chips for following these rules at your desk. (State your rules here. You may find it helpful with younger children to have them repeat the rules. With older students, have the rules posted in the room.) If you earn enough chips in twenty minutes, you can trade those chips for (insert your reinforcement here). When you earn a chip, put it inside your desk. If I see a chip, I take it back.

Briefly explain the seatwork assignment and instruct the students to start working. Immediately begin to praise hand out tokens to students who are working. Remember to ignore a student who is not working. Be sure to praise the specific behavior you want to increase. Continue in this manner until the target student is working appropriately. Then immediately praise that student for the correct behavior. "Molly, you're working quietly! That's how to earn a chip!" Praise target students frequently to ensure that they see the value of learning the seatwork rules.

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Direct Instruction was adopted at Springfield High School by Principal Bill O'Neal and social studies teacher Graydon Lewis, who were searching for a program for high school students deficient in reading. The Corrective Reading Program's Decoding C and Comprehension B were first selected and piloted for the Engelmann-Becker Corporation. Before 1973, the EMR classes used a prototype of the comprehension program in a self-contained format. This has been expanded for the use of all students who qualify. The reading classes can include certified Learning Disabled, Educable Mentally Retarded, and Severely Emotionally Disabled students, as well as regular students.

The reading teachers and program are within the Special Services Department of Springfield High School. This department is a unique grouping of individuals highly qualified in teaching reading and content area skills to remedial students. Their efforts are coordinated to provide the most efficient and effective student skill attainment. Every reading teacher is required to be formally trained in Corrective reading techniques and district policy dictates full use of the program as designed.

**Assessment and Placement**

A flow chart indicating the classes offered and their sequence is shown in Figure 1. Students are screened for the program in several ways. Incoming ninth graders are identified in the spring of their eighth grade year by California Achievement Test (C.A.T.) scores in language skills and by teacher recommendations. C.A.T. scores are also used for high school students to identify any who are low. The English Department also gives the Stanford Diagnostic Reading Test, Brown level, each fall to incoming ninth graders. Students falling in the bottom three stanines (lower 23%) are referred for further testing and specific placement within the program by using the Corrective Reading Placement Test.

Each Special Services Department teacher acts as a liaison between their own department and an assigned department. The liaison assists the assigned department in writing academic referrals. This includes interpreting the student's cumulative folder. A battery of tests (Glimore, Gollstett-Bliss, and Individual Reading Inventories) are used when initial screening warrants additional assessment. In addition to reading, remedial content area classes are available for those students reading below grade level.

**Delivery of Services**

Reading classes are homogeneously grouped by academic skills. Reading is a regularly scheduled class (rather than a resource room activity) for which the student receives English credit. Comprehension C is designed for the student to take a full year and receive English credit at the 11th or 12th grade. Classes meet five days a week for fifty minutes each day and one complete lesson is taught daily. Most of the classes offered at the high school are taught on a semester basis; this is not true of the reading classes. It is made clear to students in the fall that they will be in reading class for the full school year. The goal is to complete 240 lessons by the end of the school year. In most instances, it is in the student's best interest to follow the sequence of the program until they have mastered the skills at every level.

Within the classroom, Direct Instruction techniques provide for maximum academically engaged time. The model-lead test strategy allows the teacher to task-analyze the components and the students are reinforced until they meet criteria. A time management study conducted in 1978 by Bob Hammond, Director of Assessment and Evaluation, shows student-teacher interaction occurs 73 to 80 percent of the time. This satisfies one of the District's reading goals.

**Transition**

One problem associated with using a program based strongly on Direct Instruction is the transition of students from this setting into regular classes. The sequence of corrective reading classes (see Figure 1) weights the student from reliance on the strongly teacher-directed instruction (i.e., Decoding B) to a more self-directed program (i.e., Comprehension C). Introduction to Literature completes this transition sequence. These courses parallel content taught in regular English classes, but provide more structure for low-achieving students.

**DI in the Content Areas**

Direct Instruction techniques have been successfully used in many of the content areas. Teachers in social studies, science and English have asked for help from Special Services staff in the use of sequencing of skills, model-lead tests, time management, and behavior modification skills common in a Direct Instruction program. In addition, a program designed to use regular students as tutors trained in the above skills, can be used in any needed area.

**Evaluation**

All reading classes are prerequisite and posttested on the Stanford Diagnostic Reading Test, Comprehension Battery, Brown Level. A raw score of 42 passes the district reading competency requirement. Mastery tests can also be used at the end of each semester. From the results of these criterion-referenced tests, weak areas can be detected.

The Corrective Reading Program has been very successful at Springfield High School. In 1980, out of 78 students enrolled, 78, passing, a district reading competency: 62 of 62 students passed in 1981. (The students who were only in Decoding B were not included in the above numbers because the materials are not at competency level.) As mentioned, Direct Instruction techniques have transferred well into the content areas. The Special Services staff feels that much of the success of this program is due to the support and involvement of the total Springfield High administration and staff. Not only are the students getting help with reading and competencies, but are actually gaining in their areas of deficiency, so they can succeed elsewhere as well.

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**Got "Smart" Kids? Help Me**

Direct Instruction proponents often say that DI is not just for low-achievers—"that it is effective with average and high-performers, too." Critics continue to doubt this. As a result, Dr. B.J. Sweeney, a teacher at Coburg Elementary School in Eugene, Oregon, is collecting information to support the effectiveness of DI with higher performing students. He will use this information as the basis for an article that will appear in a future issue of the News. If you have any information on this topic (research reports, program descriptions, anecdotes, etc.) that you are willing to share, please send it by May 15, 1983 to:

Louis Mensing
Coburg Elementary School
21274 N. Coburg Rd.
Eugene, OR 97401

You will receive credit in the article for any information you send which is used. Thanks for any help you can lend.

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Association for

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P.O. Box 10592

Eugene, Oregon 97440
Dear Ziggy,

The problem that really bothers me in my classroom is the amount of disruption that is created each time I call a group to come and work with me. Each time we change groups, it seems like ten minutes of the next period is lost because we have to calmly get everybody back to work again. I believe in the value of small-group instruction, but how do I stop this change in disruption caused by these transitions?

Ziggy Says:

There are two kinds of transitions — those involving a change of location and a change of activity (the type that you referred to in your letter), and those involving a change of activity without a change in location (e.g., moving from the teacher presentation to the teacher-directed portion of the take-home assignment in DISTAR lessons). Both can be handled in the same way when problems occur.

The goal of any transition is to get it over with as soon as possible without disruption. Because transitions unavoidably compete for time with instructional time, they must be kept to an absolute minimum duration. Otherwise, they will rob you of valuable teaching time and prevent you from being as effective as you can be. Therefore, it is worth spending some time before the lesson begins to get students used to transitions. By good, I mean no more than two minutes for groups to change from one place in the room to another and 30 seconds for changes in activity or for materials only — no change in location. These should be your goals, and 30, yes, they are attainable.

Treat transitions as any other skill to be mastered by: (1) signaling the onset and termination, (2) correcting "errors" of slowness or disruptiveness by modeling and testing on the correct behavior which is quiet and quick.

You might find that you have to send students back to their desks several times initially to practice doing it the right way, but if you model the behavior for them initially and tell them that the last group of students worked with you could make the transition in only 30 seconds without disrupting the class, then you will have soon have students who can make transitions and be ready to work in the new activity before you can say "Morphological Spelling." The time you invest now in teaching your students to make efficient transitions will pay dividends for you with more minutes available for instruction within only two or three days. And remember the problem of never having enough time to finish a lesson or teach to criterion? Well, a quick transition solves those problems, too. Good luck.

Dear Ziggy,

I'm committed to teaching my students in small groups for reading, but I don't have an aide, and no matter how I try to fit it into my schedule, I always have one or two groups of students at their desks while I'm teaching another group. These kids know what is expected of them, so I stop being done during their seatwork time, and the work is not that bad, but they seem to think that this is their social hour — or worse. How can I do a decent job of teaching my small groups without getting into a classroom of rowdies like this? Help, this situation is driving me crazy!

Ziggy Says:

Let me answer by describing a scenario depicting how your classroom might look in about five days (if you decide to try this approach).

You are seated in one corner of the room, looking out over the entire class. One of your groups is seated in front of you in a semi-circle, facing the corner and situated within your arm's reach. Before the lesson started — in fact, before you went home last night — you (with the help of a student or parent volunteer) prepared work folders for each student, containing more than enough seatwork to last for the duration of the students' seatwork time. You don't really expect students to complete all of the work in their folders; you only expect them to finish the pages you have marked as required. The remaining pages simply provide extra practice on skills previously learned. You have cleverly selected work for the folders which will produce a minimum number of complaints when those which do arise, you have taped on each student's desk a small sign which reads: "Please don't do this to Me." If the student needs help, s/he flips over the sign, then goes on to other tasks or other pages which s/he can do. At the end of your lesson, you circulate among students' desks for a few minutes, providing assistance to the students who have requested it during the lesson, then going on to your next group or to the next class activity. You have also encouraged students to go to the bathroom, sharpen their pencils, and get a drink of water before work time, so these disruptions are no longer a problem for you.

As you teach your lesson, you glance up periodically (perhaps every task or two initially and every minute or two eventually), scan the room for two or three seconds, and call out praise statements across the room to two or three students who are working well independently. While you are doing this, you gently rest your hand on the shoulder of the student closest to you, who so easily distracts. He knows that you haven't forgotten about him, and the students at their desks — all the students, not just the ones you praised — learn that you continue to be aware of what they are doing. Even though you are very busy with your lesson. Your group continues to do as well as ever; your seatwork begins to do better than you ever thought possible. Try it and watch it happen.

 Savings for New Members

Normal membership covers the period from September 1 to August 31. To encourage new members to join during this period of growth, all new members enrolled between April 15 and August 31, will be credited with membership for the following school year (i.e., through August 1983).
Eighth Annual Direct Instruction

to be held August 16-20 in Eugene, Oregon.

This year the conference will be an extra special event. It will be held at the Eugene Hilton Hotel and Conference Center, located in Eugene downtown. The Hilton offers a number of extras — special room rates for participants, free transportation to and from Mahlon Sweet Airport, a health club for use of their guests, and free parking under the hotel. Participants may rent bicycles at the front door of the hotel and explore the miles of bike paths that have made Eugene a tourist attraction for many years. The downtown location is just steps away from Eugene’s finest restaurants and shopping centers. After the conference, one may wish to extend their stay in Oregon and travel 60 miles to the West and visit Oregon’s spectacular coastline or travel just 40 miles to the East for an unparalleled view of the Cascades.

In addition to repeating the wide range of training and informational sessions offered in previous years, this year the conference features several NEW SESSIONS including Law and Special Education, Theory of Instruction, and Administration and Management of the Total Direct Instruction Curriculum. The distinguished guest and keynote speaker for this year’s conference will be Thaddeus Lott, principal of Wesley Elementary School in Houston, Texas. Lott’s work at Wesley School was featured in Robert Benjamin’s book, Making Schools Work. With Wesley School, which uses a comprehensive Direct Instruction curriculum, it widely recognized as one of the exemplary elementary schools in the United States.

Conference sessions are designed to further the technical competence and confidence of teachers, aides, supervisors and administrators whose goal is to prevent failure in the classroom and to promote educational excellence. Innovators, authors and trainers will share the latest information about Direct Instruction and provide intensive training on current DI programs.

The schedule for the five-day conference provides an excellent opportunity to share experiences with people from around the world who are interested in Direct Instruction. To help you renew old friendships or start new ones, a picnic has been planned for Monday afternoon.

Schedule

Monday, August 16
Registration — 8:00 am - 9:00 am
Opening Assembly — 9:00 am - 9:30 am
Siegfried Englemann and Wes Becker will speak.
9:30 am - 11:30 am
- People who are new to Direct Instruction will learn basic presentation techniques and rationale.
- People experienced with Direct Instruction will go to a session that overviews the latest developments in Direct Instruction and receive information about new Direct Instruction programs.
Lunch break — 11:30 am - 1:00 pm
A Sessions — 1:30 pm - 2:30 pm
B Sessions — 2:30 pm - 4:00 pm
Get Acquainted Picnic (free to participants) — 4:30 pm

Tuesday through Thursday, August 17-19
A Sessions meet 8:30 am - 11:30 am
B Sessions meet 1:00 pm - 4:00 pm
The Association for Direct Instruction will have its Second Annual Meeting at 4:00 on Thursday, August 19. Thaddeus Lott will address the Association members.

Friday, August 20
C Sessions — 8:30 am - 11:30 am
- 11:30 am - 2:45 pm
Closing Assembly — 2:45 pm
Recognition Awards Presentation and a summary session by Englemann and Becker.

SESSIONS OFFERED

There are 29 sessions offered during the five-day conference. Participants may choose to attend three. Sessions are either training or informational sessions. The focus of training sessions is on specific teaching behaviors. Task practice is involved in each of these sessions. The goal of informational sessions is to provide the kind of detailed information needed to implement successful techniques or to understand the techniques.

Sessions are scheduled in three time periods. Each participant may choose one session during each period. So that no training session becomes too large to be effective, some sessions are offered. More will be added as necessary.
A and B sessions offer approximately 10% classes per time slot. Each C session offers 5-6 hours of class time (all day Friday). All sessions focus on current techniques and materials.

1. Teaching the Beginning Reader: 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 Word Attack Basics® (Decoding A of the Corrective Reading Series), DISTAR® Refining I, DISTAR Fast-Cycle and Teach Your Child to Read in 100 Easy Lessons, a new Direct Instruction program for teaching reading at home. Participants will learn aboutuard, and skills needed to implement the programs — placement, acceleration, scheduling, grouping, presenting prereading exercises.

2. Reading Mastery III, IV, V & VI: These programs present a careful development sequence for teaching comprehension and decoding skills to students who have mastered the basic skills. Programs manageable procedures for meeting the full range of comprehension and decoding objectives. (A’A)

3. Teaching Beginning Language Skills: For teachers of basic language in preschool through grade 2 and for teachers of students for whom English is a second language. Focus is on the language of instruction — rules, if-then, following directions, comparatives, prepositions, etc. — with emphasis on statement production. Includes a tract on how to apply concepts to new situations. Training on Spanish for English will be covered as will using Distar Language I and II with students for whom English is a second language. Participants will receive a Language I & II Teachers Guide. (A’A)

4. Teaching Reading Accuracy and Fluency: How to teach students (grades 4-12 and adults) to accurately decode, increase rate, build vocabulary and reading in information in books, newspapers, and magazines. Training will be provided on Decoding Strategies® (Decoding B) and Skill Application® (Decoding C) of the Corrective Reading Series (SRA, 1978). Programs may be used developmentally or remedially. (A’A & B)

5. Teaching Oral and Written Language and Comprehension Skills: Developmental and remedial techniques for effective presentations with primary age students through adults. Based on Thinking Basics® (Comprehension A), Comprehension Skills® (Comprehension B) Concept Applications® (Comprehension C) and DISTAR Language III — Direct Instruction programs that include presentations of skills such as deductions, inferences, analogies, following instructions, vocabulary building, editing, writing and logical analysis. (A’A & B)

6. Effective Spelling Instruction: Specific information and training on SRA’s Corrective Spelling Through Morphographs® and the Spelling Mastery Series®, a new five-level basal spelling program that integrates the morphographic analysis with sound-symbol analysis and whole-word analysis. The series teaches the spelling of over 15,000 words. Designed for grades 2-8. Sessions explain the use of these programs in regular and special settings. (A’A & B)

7. DISTAR Reading II: Training in DISTAR techniques to teach students how to follow instructions, deduction skills, information reading and reading fluency. Participants receive a DISTAR II Teacher’s Guide. (A’A & B)

8. Overview and Implementation of All Direct Instruction Programs: This session is designed to familiarize administrators and teachers with all of the currently available Direct Instruction programs. Time will be spent examining the purpose and objectives of each program and the recommended implementation considerations such as: placement, group size, what types of students, grade level, transition to traditional programs and integration of each program with other DI programs. (B)

NOTE: Participants attending this session will not enroll in “C” session Overview of DI Programs and Implementation Questions.

9. Generalized Compliance Training: Procedures for dealing with extreme behavior problems (autistic, severely emotionally disturbed, and unmanageable low performers). Specifies procedures for inducing compliance and for achieving generalizations of compliant behavior to various settings. (A’A)

10. How to Evaluate Instruction (with illustrations from DI research): The aim of this session is to provide the participant with a general model to follow in designing procedures for instructional program evaluation. The session covers material in Becker & Englemann, Teaching III: Evaluation of Instruction (which participants will receive). Topics covered are "feasible designs," selection of norm referenced and criterion referenced tests, "major pitfalls," background variables to consider. Available research on DI programs will be summarized and bibliographies provided. (A’A)

NOTE: Participants in this session should not enroll in “C” Session, Research on Direct Instruction.

11. Corrective Arithmetic: Procedures for teaching students who lack understanding of fractions, decimal operations, basic work problems and equations. Also for firming addition, subtraction, multiplication, and division — facts, operations and story problems. Specific training on SRA Corrective Math and Math Modules. (B)

12. DISTAR Arithmetic I & II: Rationale, teaching procedures, and role-playing practice in facts (addition, subtraction and multiplication), problem-solving (addition, subtraction, multiplication, and division), fractions (reading, multiplying, and reducing), counting money, objects, and events, telling time, metric and standard measurement, ordinal counting equivalencies, and story problems involving many problem types. Participants will receive Arithmetic I & II Teacher’s Guide. (B)

13. Solutions to Classroom Management Problems: This workshop is designed for teachers in grades K-12 and for administrators interested in improving the behavior and motivation of students. This session focuses on practical strategies for correcting common individual and school-wide problems such as talking back, excessive noise, failure to complete independent work, being uncooperative and recess problems. The session takes participants through step-by-step procedures for solving problems that currently exist in the classroom. At the end of the session, participants will be able to implement procedures for changing behavior problems and increasing student motivation. (A’A & C)

14. Supervising Direct Instruction Programs: Information for supervisors and administrators who have experience teaching direct instruction programs. Techniques for implementing DI, pre- and in-service training of teachers and aides and effective monitoring will be discussed. Participants will receive sample forms and charts useful in establishing an effective supervision system. (B)
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I would like to register for the following (list one “A”, one “B” and one “C” session):

“A” __________________________
“B” __________________________
“C” __________________________

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Please send college credit information: ______ Yes ______ No
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Generalized Compliance Training (Part 2)

Frequently Raised Questions and Issues
By Geoff Colvin, Engelmann-Becker Learning Center

Editor's Note: This is the second of a 2 part series on Generalized Com-
pance Training. The first part was

Generalized Compliance Training ocedures have been used for the past

1 years. They have been dramatically

active in eliminating a broad range of

resentant inappropriate behaviors such

violence, aggression, tantrums, self-

jury, running away, teeth-grinding,
f-stimulation, self-induced vomiting, d

refusal to eat most foods. The pro-
am has been effectively implemented

maintained in the learner's home,

idential facilities for handicapped per-
rns; preschools; public schools; and

ivate facilities. The effectiveness of

duced across a wide range of

haviors and in a variety of settings,

the nature of the procedures, have

pelled a number of questions. In this

part I will address some of the most

tical and frequently asked questions.

![Figure 1: Establishing Non-Compliant Behavior](image)

**TEACHER**

- "Bill, start work now." (Positive presentation)
- "Bill, you need to start

work now!" (Firm voice)
- (Tugs arm, raises voice): "Start work!"
- (Grabs arm, lifts student

up and physically enforces

student to pick up materials)
- Jumps back, screams, aides

rush in, restrain student,

then drag to time out

**STUDENT**

- "No."
- (in firm voice with

arms folded)
- Turns away; body goes rigid
- Pushes teacher's arm away

and pushes material on

the floor
- Punches teacher in the face

Original command

terminated Increasing resistance

Stated reinforced

Increasing resistance

This distinction is important: not all

inappropriate behavior is labelled

as non-compliant. The program is

designed to extinguish non-compliance.

Other inappropriate behavior is

not targeted until later — students (and

trainers) become very confused if inap-

propriate behavior (un-commanded

behavior) is targeted early.

What causes non-compliance?

Non-compliance behavior is a learned

behavior and is usually quite reason-
able. It is best understood as a chain

of behaviors that takes place in a series

of interactions between an authority

person and a learner in which the learner

is ultimately reinforced for

non-compliance. Figure 1 presents a

series of interactions between a teacher

and a student and identifies the non-

compliant behavior.

In the next section I will address

the concept of reinforcement

and how it changes the behavior of

both the teacher and the learner.

Instructonal interventions use such

procedures as selecting or designing in-

structional materials that lead to suc-

cess, consistently showing that good

performance is reinforced, using ap-

propriate pacing, and following a

schedule that maximizes instruction time

and minimizes "wait" time.

Basic management interventions use

additional techniques for students who

still exhibit inappropriate behavior

when good instructional procedures are

being followed. These additional pro-

cedures include demonstrations that

appropriate behavior has positive con-

sequences and inappropriate behavior

leads to negative consequences.

No students should be placed in

Generalized Compliance Training unless

both the instructional intervention and

the management intervention have been

appropriately implemented and have

failed.

![Figure 2: Continuum of Parallels Between Teacher Behavior and Learner Behavior](image)

**WHAT IS NON-COMPLIANCE?**

Non-compliance is defined as an inap-

propriate interaction between an

authority person (parent, teacher, aide),

and a learner. The interaction is always

initiated by the authority person

(ex-

pressed as a command). For example,

the teacher says, "Start work," and the

learner says, "No," and sits with arms

folded. The rule for determining

whether behavior is non-compliant is to

ask two questions:

- Did I give a command?
- Did the learner comply?

If a learner gets frustrated with paint-

ing a picture and throws the brush on

the floor, then the behavior is non-

compliant (since no command was

given). However, if the student was

asked to start work and the student

threw the brush down on the floor, then

the behavior would be considered non-

compliant.

![Continuum of Parallels Between Teacher Behavior and Learner Behavior](image)

**NON-COMPLIANCE SET**

- Teacher's Voice
- Very Harsh
- Loud
- Harsh
- Flat
- 0
- Parental
- Prompts
- Teacher's Prompts
- Full Physical
- Assist
- Tug
- Push
- 0
- 0
- 0
- No Prompts
- Teacher's Tasks
- Only "Stand up" and "Sit down"
- 0
- A Range of Tasks Excluding "Stand up" and "Sit down"
- Teacher's Reinforcement
- No Reinforcement
- 0
- Social Reinforcement
- Always Provided
- Learner's Behavior
- 0
- COMPLIANCE

**COMPLIANCE SET**

- Teacher's Voice
- Happy
- Enthusiastic
- 0
- Pleasant
- Teacher's Prompts
- Full Physical
- Assist
- Tug
- Push
- 0
- 0
- 0
- No Prompts
- Teacher's Tasks
- Only "Stand up" and "Sit down"
- 0
- A Range of Tasks Excluding "Stand up" and "Sit down"
- Teacher's Reinforcement
- No Reinforcement
- 0
- Social Reinforcement
- Always Provided
- Learner's Behavior
- 0
- COMPLIANCE

![Continuum of Parallels Between Teacher Behavior and Learner Behavior](image)

In contrast to the teacher's reinforce-

ment of non-compliance, the learner's

response is to "seduce" the learner to

perform a task.

Given that non-compliant behavior

is reinforced by the removal of command

It is clear what must be prepared to

effect the non-compliance. The learner

must be shown through unam-

biguous demonstrations that only

compliance will be reinforced and that

any inappropriate behavior exhibited

by the learner to terminate the command

will no longer be effective.

What are the essential components

of the training procedures?

To teach generalized compliance, we

control the tasks that we present to the

learner, the consequences that follow the

presentation of the tasks, and the way

we present the task (particularly the tone

of voice that we use and the physical

prompts that we provide). The strategy

that we use is designed so that the

teacher's behavior parallels the degree

of non-compliance or compliance exhib-

ited by the learner. If the learner is

highly non-compliant, the teacher's behavior

is highly reinforcing. If the learner's

behavior is highly non-compliant, the

teacher's behavior is highly aversive. If

the learner's behavior is moderately

non-compliant, the teacher's presenta-

tion mode is moderately aversive.

![Continuum of Parallels Between Teacher Behavior and Learner Behavior](image)

Figure 2 shows the continuum for

the range of possible learner behaviors

and the corresponding parallels in

teacher behavior.

(Continued on page 14)

DIRECT INSTRUCTION NEWS, SPRING, 1992
Generalized Compliance Training (Continued from Page 13)

The bottom continuum shows the learner's behavior, ranging from highly compliant to vigorously non-compliant. The teacher behaviors vary in terms of the tasks assigned to the learner. The voice that the teacher uses when presenting tasks and consequences, the use (or non-use) of prompts, and the use of physical prompts (to insure that the learner produces the response that is required for by the tasks the teacher presents). The teacher presents a unique set of tasks when the learner is non-compliant. These tasks are "Stand up" and "Sit down." "Stand up" and "Sit down" are presented only when the learner has non-complied. These tasks are ideal for dealing with non-compliance because: (a) they can be presented and modeled while the learner is not being non-compliant, and (b) they can be physically prompted if the learner does not comply and (c) they become relatively aversive if repeated trials on these tasks are presented. Therefore, this task, "Stand up" and "Sit down," becomes distinctive and strongly associated with non-compliance. The tasks that are presented when the learner is being non-compliant are highly variable, ranging from "Talk" to "Touch" and then bring your book back to your desk.

The voice that the learner uses ranges from very pleasant (for compliance) to extremely harsh (for non-compliance) to extremely pleasant (for non-compliance). The voice that the learner uses is the voice that the teacher parallels the learner's compliance. If the learner is moderately non-compliant, the voice will be flat and non-reinforcing. If the learner is vigorously resisting, the voice is extremely harsh. The worse the behavior, the worse the voice.

The use of reinforcement also parallels the behavior of the learner. If the learner is being non-compliant and is presented with "Stand up" and "Sit down," no reinforcement is provided, even if the learner complies with the instruction. Likewise, the use of prompts parallels the learner's responses. If the learner is non-complying more urgently, more urgent prompting is provided. These prompts range from mildly aversive physical prompts — a tap or a mild tug on the learner's arm — to very vigorous physical prompts (a hard tug that brings the learner to a standing position, or a vigorous push that returns the learner to a standing position).

By using this range of teacher behaviors, we can clearly show the learner what the teacher expects and how the changes in the teacher's behavior to the learner is provided with a choice. The learner knows the consequences for non-compliance, and the consequences for compliance.

Is Generalized Compliance Training an application of the principles of Direct Instruction? Yes. The Generalized Compliance Training procedures are designed to teach the concept of compliance. The principles used to teach this concept are no different than those used to teach any concept in Direct Instruction. To teach the concept "black" we would present the learner with a series of examples composed of a variety of objects that are black and some that are not black. We would firm the discrimination by presenting examples to demonstrate that the only difference between positive and negative examples is that the negative examples are black. Similarly, to teach the concept of compliance, we present the learner with a series of tasks to provide unambiguous information that compliance leads to positive consequences and non-compliance leads to negative consequences.

The rule for teaching a generalization for any skill is to juxtapose examples that differ greatly and treat them as an example in the same way. We teach the generalized concept of compliance by: (a) seeing tasks that show a wide variation in persons presenting the task (time of day, task duration, task form and content, setting, proximity to trainer, and immediacy of reinforcement); and (b) showing the learner that all of the tasks presented are the same, i.e., that compliance leads to positive consequences and non-compliance leads to negative consequences.

Do you have any data?

The last chapter of the text Generalized Compliance Training (Engelmann & Calvin, in press) presents a number of case studies to illustrate the generalization of the concept.

Case Study 1.

Subject 1 is a 15-year-old male whose primary diagnosis is deaf-rubella syndrome and right congenital cataract. According to his parents, he was a happy child until he began his schooling. At his school placement (a residential facility for deaf students), his behavior had reached a severe, persistent level. His repertoire included hitting his nose until it bled, scratching his arm until he drew blood, screaming, ripping his clothes, and vomiting. He was declared out of control and was placed in a TMR public school program in 1980.

In this setting, he exhibited his former "tantrums" (screaming, ripping his clothes, hitting his nose, scratching his arm, and vomiting). The average frequency of the tantrums was 4.5 per week with an average duration of one hour. The compliance program was introduced on September 23, 1980. The time required to establish the non-compliance and compliance set was 3½ hours. The subsequent frequency and duration of the tantruming averaged one tantrum every 3 to 4 weeks with an average duration of 5 minutes for the remainder of the term. For the remainder of the school year, his tantrums occurred once every 6 weeks with an average duration of 2 minutes.

Case Study 2.

Subject 2 is a profoundly retarded, severely epileptic male. In the past three years, he has had three different school placements and was a total failure in the school system. He has been excluded from the school system because of severe aggressive non-compliant behavior. In the context of a demand situation, the subject would typically resist by biting, hitting, or pinching the teacher. He frequently would throw himself on the floor and attack anyone who tried to make him stand up or resume the previous position.

At the close of the 1980-81 school year, the classroom teacher (from a high school TMR class) presented data showing the severity of the subject's non-compliance and the last few weeks of the year. This teacher and the student's aide had attempted to use a form of compliance training in which the subject was required to stand up and sit down eight consecutive times. The decision was made that the subject could not function in a public school setting.

The subject was eventually placed in our charge for extensive compliance training. This training commenced 4 months after the baseline data were presented at the meeting. The training data, beginning 8/24/81, show a dramatic reduction in non-compliance. The problem in the previous program was that the subject was punished for non-compliance, but never reinforced for compliance in any comparable way. That is, if the non-compliance set was in operation, the behavior was never effectively established. Once he learned the basic relationship that compliance is reinforced, the incidence of non-compliance decreased very significantly, as indicated by Figure 4.

Case Study 3.

This subject is an 11-year-old male who has been diagnosed as hyperactive, autistic, psychopathic, and schizophrenic. The primary problem was breaking and tearing objects. He had no toys because he consistently broke them; he had no worn pajamas to bed for five years because he would tear them; he had no furniture or pictures in his bedroom because he would break them; he had torn pieces off the fence, ripped electrical wiring under his home, torn out bathroom fittings, and torn out the back of the TV. The breaking and tearing behavior occurred when he was unsupervised. The parents had the practice of either hiding him to his bed by means of a belt and rope following bouts of breaking and tearing. In this case study, only the number of torn/broken items at home and at school. The mean number of items broken or torn per day was 3.5 (2.8 at home and 2.3 at school). This number reduced to virtually zero at each site after compliance training was introduced. The data also show that the reduction in breaking and tearing did not occur at school until the program had been introduced there (i.e., generalization did not occur at school as a function of the program being implemented effectively at the home by the parents).

Has the program ever failed?

No. Everybody we have worked with (or supervised) has shown dramatic improvement. In a few cases, there have been short-term regressions, all of which could be traced to clear departures from the procedures specified in the program. Some of the departures included:

1. Failure to correct the pre-compliance at the scheduled times (the learner had been doing well so the procedure was dropped).
2. Failure to expand the compliance set, i.e., there is too big a gap between tasks presented in pre-compliance and tasks required in particular activities, such as lunch.
3. Failure to immediately consecutive major non-compliance.
4. Demurring on the criterion for compliance.
5. Failure to distinguish between non-compliance and the learner's inability to perform the task (or follow directions).
6. Failure to obtain cooperation from the home.

How are the procedures modified for the higher-performing student?

The typical profile for a higher-performing student is a Generalized Compliance Training shows that the learner:

1. Is capable of performing reasonably well in most situations;
3. Is highly non-compliant in many situations that place direct demands on the learner.

The learner may steal, may have terriﬁc negative things said to her, may go rough "cycles" of being extremely disruptive. In all cases, however, the teacher tends to regard it at a relatively low rate; and

4. Is highly non-compliant in many situations that place direct demands on the learner.

The learner may steal, may have terriﬁc negative things said to her, may go rough "cycles" of being extremely disruptive. In all cases, however, the teacher tends to regard it at a relatively low rate; and

5. Is highly non-compliant in many situations that place direct demands on the learner.

The learner may steal, may have terriﬁc negative things said to her, may go rough "cycles" of being extremely disruptive. In all cases, however, the teacher tends to regard it at a relatively low rate; and

6. Is highly non-compliant in many situations that place direct demands on the learner.

The learner may steal, may have terriﬁc negative things said to her, may go rough "cycles" of being extremely disruptive. In all cases, however, the teacher tends to regard it at a relatively low rate; and

7. As the learner improves, change the statement of commitment so that it reﬂects the improved performance of the learner.

The statement of commitment is the central component of the modiﬁed program. The speciﬁc features of this statement are:

1. It should refer to the learner’s inappropriate behaviors.
2. It should refer to the appropriate behaviors as well as the student is learning to master.
3. It should be written in the ﬁrst person so that when the learner reads it aloud, a commitment is being made.
4. It is not a contract. The terms are imposed.
5. It has to be read in an appropriate way.

Below is an illustration of a statement of commitment, designed for a 13-year-old boy who had not been able to stay in school for a complete year since grade 1.

Although the boy is very intelligent and is often disruptive, he produced an incredibly violent outburst, during which he was abusive, aggressive, and generally out-of-control.

Some of the points in the statement of commitment are based on the learner’s behavior. For instance, he indicated that he hated to read fiction because he was interested only in fact. Also, he often changed the subject during a conversation to talk about violence. For instance, I work for long periods of time without becoming disruptive. I do not stay on tasks that I like. The topic is math, I talk about math. If the topic is things that I like to do. I talk about things that I like to do.

Who should implement the program?

The procedures are very precise and must be closely followed if they are to work. We therefore recommend that personnel trained in these procedures implement the program. A skilled teacher who has sound management skills could implement the program if a trained person is available for consultation. A simple rule is that the program is implemented and the learner is not show substantial improvement the first day, the program should be terminated immediately, for something is seriously wrong.

What administrative steps should be taken to implement the program:

1. Parental or guardian consent based on complete understanding of what tasks and contingencies are on the program for the learner must be obtained.
2. Complete disclosure and consent from the school district for implementation and maintenance of the program, especially subsequent placement of the student, must be obtained.
3. Independent observation by a school ofﬁcial of the learner’s non-compliance assessment and documentation that “good teaching” techniques have been used and have failed with the learner, the learner must be provided.
4. Continued monitoring of the program must be conducted by a school ofﬁcial (or agency ofﬁce), with the understanding that the program is to be discontinued if it does not change the learner’s behavior relatively quickly.
5. The building principal and staff of program must be informed (i.e., have a general perspective).
6. Commitment from teacher and parents to participate in the program and to make appropriate setting changes must be obtained.

Figure 4. Case Study #2

Figure 5. Case Study #3

Signed so that we do not "press the ﬁt buttons." If we confront the learner presenting direct tasks that require attention, we will probably be able to serve the behavior much more quickly because these techniques provoke the behavior.

The typical mistake that teachers make in dealing with these higher performers is to try to treat the disruptive behavior as a rational product. The teacher typically has no more control over this behavior than the lower performer has. Although this learner may verbally articulate and apparently rational in most situations, rationality apes the learner in situations that he is basically associated with non-compliance. In these situations, the learner does not respond like a rational learner, but exactly in the same out-of-control way that the lower performer exists.

A ﬁnal point about the higher performer. They are usually referred for attention not because they are non-compliant, but because they are "anti-sociable," or because they exhibit highly appropriate behaviors. In fact, when asked, their basic problem is that they are non-compliant — a fact that is easily demonstrated.

The learner is quite young and capable of reading well, we do not modiﬁe the program. If the learner is older and is capable of reading well, we introduce two program modiﬁcations:

The Solution Book is an unusually practical, three-part reference book on classroom management for elementary teachers. The first section of The Solution Book consists of nine booklets on topics important to the teacher who wants to set up and maintain a positive, organized, learning environment. The emphasis throughout these booklets is on the prevention of misbehavior. The second section consists of hundreds of "solution sheets." Each solution sheet outlines specific, easy-to-follow procedures designed to deal with a behavior problem found commonly in elementary classrooms. The last section contains a variety of reproducible materials that teachers will find useful for organizing themselves and managing students.

I implemented Sprick's book in my second grade classroom of lower-performing students in the 1980-81 school year and have used the book almost exclusively in my more of its suggestions in this current school year. The remainder of this review, in Classroom Discipline, is a summary of what I think The Solution Book could do for teachers, but upon what it has done for me and other teachers I know who have used it.

All nine topic booklets in Section I of The Solution Book contain valuable information and procedures for establishing a well-organized, positive classroom environment. The first booklet in the series, "Establishing the Discipline Plan," (Booklet A) presents a wealth of ideas for preventing a large variety of misbehavior from ever occurring. It starts with a discipline meeting of the year" (Booklet A). A unique feature of these booklets is that they emphasize teaching students appropriate behaviors, as opposed to assuming that students know how to behave, but simply aren't motivated to do so. I have used this strategy of encouraging students to be more effective when the student themselves have been taught how to behave (I told) to ignore such behaviors themselves.

The fifth booklet (E) is called, "Increasing Positive Interactions and Improving the Student's Self-Concept." This booklet features an objective, easily followed procedure by which a teacher can analyze and improve the quality of interactions between the teacher and each student. More specifically, the procedure shows the teacher the ratio of positive to negative interactions with students, the distribution of positive and negative interactions, whether or not the positive interactions are contingent upon student performance, and how to improve weak areas. The conscientious use of this booklet alone is certain to significantly improve the atmosphere of any classroom. In addition, many of the other ideas presented throughout The Solution Book can be implemented more quickly and effectively if the teacher has first established the kind of positive classroom atmosphere that this booklet advocates and shown us how to attain.

Booklet H, "Establishing a Discipline Plan," provides teachers with a systematic means of organizing and implementing the basic techniques discussed in booklets A-E. An additional, highly useful feature of this booklet is the section on developing a simplified version of the teacher's discipline plan for use by substitute teachers.

Booklets F and G cover more advanced management procedures in situations including small-group instruction, large-group instruction, independent seatwork, learning centers, and peer tutoring. In a self-contained classroom with an aid, I teach three DISTAR Reading Groups, two DISTAR Arithmetic groups, a DISTAR Language group, Level A of Spelling Mastery, and the E-B Press Cursive Writing program. I was not able to manage this much of an instructional load until I implemented the techniques for teaching students to work independently, found in Booklet F of the Solution Book.

The ninth booklet, "Survival Skills for Teachers," is an invaluable resource for ideas on both stress and time management for teachers. The teacher who utilizes the techniques in this booklet will have taken a big step toward the prevention of "teacher burnout."

One of the important "solution sheets" in Section II of The Solution Book covers a specific problem encountered frequently in classrooms and around the school, and provides brief, specific, time-tested solutions to each problem. A range of solutions is presented for each problem, insuring that the teacher can select one that is appropriate to students' grade level and any other special circumstances. Although the topics covered are too numerous to list completely, a sampling from this section includes:

Careless Errors on Written Work
Cheating, Lost Paper, and Pencils
Talking Back to the Teacher
Talking, Name Calling, Violent Behavior
The Apathetic Student
Lack of Motivation on Tests
Crying, Lying, Tardiness, Sweating
Caterpillar Problems

Obviously, the successful solution to any one of these problems can be of great value to the teacher and students alike. The nine booklets in Section I of The Solution Book help the teacher establish a classroom environment where such problems rarely arise, and the solution sheets guide the teacher toward solving such problems, should they arise anyway.

The Materials Section of The Solution Book consists primarily of aids designed to help the teacher motivate students and to recognize student achievement both socially and academically. The remaining materials are for the teacher, to be used in conjunction with techniques presented in Section I for goal setting, self-evaluation, and record keeping. All the materials in Section III are reproducible without the permission of the publisher.

In the introduction to The Solution Book, Randy Sprick quotes Emerson as saying, "The secret of education lies in respecting the pupil." From my experience with The Solution Book, it is apparent that Dr. Sprick has a high regard not only for pupils, but for those who are charged with teaching them as well.

by Susan Dixon


Intelligence Can Be Taught is crammed with information that is supportive of a Direct Instruction (DI) approach. The title reveals that Whimbey agrees we can teach school-age children better and make them smarter. To do this, Whimbey suggests greater use of what he calls cognitive therapy, which has a lot in common with DI. In fact, Whimbey constantly refers to the University of Illinois' former Bierer-Engelmann preschool (the birthplace of DI) as a cognitive therapy approach, replete with 8 pages of description and 10 pages of a sample lesson (taken from Bierer and Engelmann's Teaching Disadvantaged Children in the Preschool).

Whimbey's suggested instructional techniques correspond most closely to Engelmann and Carnine's cognitive routines (Engelmann and Carnine, Theory of Instruction, in press). For column multiplication problems, for instance, a DI teacher might ask: read the problem ("count by 7, 5 times, equals how many"); what do you do first ("count by 7, 5 times"); where do you write 7 ("above the tens place"). When skills like this are initially made overt, the teacher can effectively correct a student mistake as it happens, rather than guessing where the error occurred after a student has attempted the entire problem. And obviously, the immediate feedback benefits the student, too.

Engelmann's cognitive routines are more advanced technically than those suggested by Whimbey. Engelmann stresses strategies that work for a variety of problems. Also, he carefully lays teacher guidance so the student can function independently. Whimbey's method is less systematic, less deductive.

(Continued on p. 17)
Ms. Kilian 'n' Kid's Say Thanks
For Programs That Work

(Story on page 19)
See How You Compare. Answer the Questions for Yourself.

Table 6 (cont.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>1. How much should teachers be paid?</td>
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<tr>
<td>2. Do you think the teachers are qualified to teach?</td>
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<tr>
<td>3. Do you think the school is safe?</td>
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<tr>
<td>4. Do you think the school environment is conducive to learning?</td>
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<tr>
<td>5. Do you think the school provides enough resources for learning?</td>
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<tr>
<td>6. Do you think the school encourages creativity and critical thinking?</td>
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</tbody>
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Million 'N Kids Say Thanks

Each year, the Million 'N Kids program helps students learn and grow. Not at Million 'N Kids, the students are not just learning to read, but they are learning how to be successful in life. They learn how to communicate, how to work in groups, and how to solve problems. The Million 'N Kids program focuses on building confidence and self-esteem in each student. By working together and helping each other, the students learn that they can be successful at anything they set their minds to.
Compliance Training

(Continued from Page 15)

responses. The inappropriate responses could have arisen from (a) non-compliance; (b) failure to understand the directions; or (c) the learner may have been unable to produce the response called for. It is only after compliance has been established that we can reliably assess the learner’s skill level.

3. They are sometimes overwhelmed by the intensity of high structure and precision of instruction required to teach the newly compliant learner.

What are the alternatives to compliance training?

When working with highly non-compliant learners, we can expect the initial training to be stressful. These learners use every non-compliant behavior in their repertoire to terminate the demand situation. However, once they learn that compliance is the only way to terminate the negative context and that compliance leads to reinforcement, the improvement in behavior and skill are very dramatic. Now, some people question the “humaneness” of the initial training where the learner is quite agitated and the trainer is aversive. Let us consider the alternatives.

1. We may continue with an abortive program that serves no one (neither the learner, the teacher, nor the parents) and is often quite punitive.

2. The school district (or agency) has to provide an aide, one-on-one, to literally shadow the learner all day.

3. Medication is nearly always prescribed which never solves the problem. The medication merely serves to drug the learner (which gives the teacher and parents some respite). However, once the medication wears off, the learner’s behavior is generally worse. Stronger dosages are then prescribed and the fruitless cycle continues.

4. Finally, the learner may be placed in an institution (where the problem of effective treatment is close to zero).

My own position is that the cost of extinguishing the non-compliant behavior is minimal compared with the significant gains to be made by the learner.

Concluding remarks

This two-part series was designed to present an overview of the Generalized Compliance Training procedures and to respond to commonly raised questions and concerns. The specific details of the training procedures are considered beyond the scope of these two articles. The training details are presented in a text that Zig Engelmann and I are writing, which should be available early next year. If a reader requires additional information about the program, availability of trainers for consultation, or possibilities for receiving training, please feel free to contact Zig, Kim, or myself at:

Engelmann-Becker Corporation
PO Box 10459
Eugene OR 97403

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Eighth Annual DI Conference

(Continued from Page 1)

At the Annual Direct Instruction Conference, participants attend the sessions they sign up for and they don’t jump sessions. They understand that they will work hard. And before very long, they discover that their hard work is strongly reinforced by learning as much during one week as they would probably learn during an entire college year that offered the same courses. The faces of newcomers on the first day of Conference is interesting. Their eyes, their expressions, and their reactions laugh suggest that they are very serious and somewhat intimidated. By the end of the week, their faces and behaviors have changed a lot. They are relaxed, happy, and eager to go into the classroom. I realize that this description sounds a little romantic, but it’s accurate. And I’m sure that the 1982 Conference will be the highlight of this year for me and the other trainers.

We are interested in serving teachers and kids — that’s our life. Our life becomes very frustrating when we don’t feel that we are doing all we can, when counselors don’t permit us to do the job the right way. But when the conditions are right — when you feel that you are really able to train or convey the information — everything seems worthwhile.

And after the Conference is over, both the trainers and the participants leave with a nice, warm feeling — the kind you get when your home basketball team wins the tournament. It’s great.

So if you want to spend a week as productively as you could possibly spend one (with the means that you’ll get more out of it than you could out of virtually any other week’s experience), come to the Summer Conference. We can’t promise perfect weather, but we can promise accommodations that are a far cry from those in 1975. This year, the Conference will be held during the week of August 16-20 at the new Eugene Hilton Hotel. The guest rooms are very pleasant and the Conference facilities are excellent.

Although there will be physical differences between the Eighth Annual Conference and that first one in 1975, there will be many similarities. We will have some of the best trainers in the world, and some of them will be the same. The people who participate freely during the first Conference — Wes Becker, Phyllis Haddock, Randy Sprick, Gary Johnson, John Ochoa. The goals and standards that we held in 1975 will also be the same for 1982. We’re going to provide the best Conference that we can design, and our focus will be singular — on providing you with the most information and practice that we can efficiently communicate during our time together. Yes, you will work hard, but you’ll leave the Conference a better teacher than you were when you registered that first day.

If you haven’t attended one of our conferences, you give it some serious thought. The Eugene area is beautiful — not far from the ocean, the Redwood forests, Crater Lake, and amazing mountains. Fun activities abound because the Eugene area may be the outdoor capital of the world. And during the Conference, it won’t be all work. We’ll have a picnic together, and after many things are going to become a part of a vacation, which can legitimately be treated as a tax-deductible, business expense. So consider the side advantages associated with the Conference, but if you decide to come, come prepared for the Conference. It’s worth a trip to Eugene.

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Full page: $200
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The DI Philosophy

• THERE IS A VIABLE TECHNOLOGY OF TEACHING

• TEACHERS ARE RESPONSIBLE FOR CHILDREN’S LEARNING.

• EVERY CHILD CAN BE TAUGHT.

Dissent

The editors believe that publishing polemical dissent is critical to any forum which strives to be fair and open, which encourages readers to think through issues for themselves, and which wants to avoid unexamined dogmatism. Therefore, we welcome expressions of dissent for various direct instruction issues — either from those who consider themselves direct instruction professionals or from those who view the field from another perspective. You may submit your views as either two or four page formal dissent or, in brief form, as letters-to-the-editor.