Long-Term Benefits from Direct Instruction

Results from a Follow Through study show that high school students who received direct instruction in primary grades scored higher on standardized tests, dropped out less, and applied to college more often than did students in comparison groups. (But some findings are disturbing as well as positive.)

A growing consensus about effective teaching practices for at-risk students in the elementary grades has been developing during the past ten years. This research (Brophy and Good 1986, Stebbins et al. 1977) shows that teachers using direct instruction can enhance academic growth. Direct instruction is a highly interactive approach to teaching. The lesson is structured so that teachers can assess immediately whether students understand the concepts being taught. If there are problems, the teacher guides the students toward comprehension by providing immediate feedback and modeling a pertinent problem-solving strategy (Gersten and Carnine 1986).

Direct instruction, however, has its critics. They assert that students may be stifled by the structure and that the effects dissipate when students are left on their own. In fact, some say direct instruction can cause students future harm.

These criticisms intensified with the release of a study of the later effects of preschool programs for at-risk children (Schweinhart et al. 1986). According to these authors, although 18-year-olds taught with direct instruction in preschool accelerated academic achievement during elementary years, the early academic focus harmed these students in later life, especially in the sphere of social behavior.

On the other hand, eminent educators such as Benjamin Bloom (1981) have asserted that structured instruc-

Libby, Montana, Testifies for Distar

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While the debate over direct instruction reading raises blood pressures in urban centers, here in rural Montana our kindergarten and first-grade students are benefiting from its use.

After completing two years (K-1) in the Reading Mastery program, not one of our second graders qualified for Chapter 1 assistance. Teachers observe that our students are neither bored nor stressed. Quite the contrary. They love to read and are highly successful. A parent survey last year showed 100 percent support for the program and teachers are thrilled with their students' progress.

We have noticed two additional bonuses from the direct intruction K-1 reading program:

1. Students mature more quickly and begin learning when they experience the structured kindergarten program. They know what is expected in the teaching/learning process and appreciate this clarity.

2. As kindergarten students learn on-task behavior, they experience positive feelings of success. The attitudes and work habits they develop in kindergarten carry over into first grade.

As a curriculum specialist who has taught traditional reading programs and Distar, I can offer some reasons why the SRA Reading Mastery program is superior for K-1 students.

- **Students with well-developed visual and auditory perception can begin reading in kindergarten and benefit from an extra year to reinforce their reading skill before meeting the heavier demands for comprehension in social studies or science.**
- **Learning to read is divided between kindergarten and first grade, which is less stressful for both teacher and student. In most traditional basal programs, the first-grade teacher and student carry the load.**
- **Students are successful. As they learn a new skill in one task, they apply it to another, and review it in another.**
- **Direct instruction in reading provides a model for clear, logical thinking. Our district uses Math Their Way, an open-ended discovery program that uses manipulatives. The two methods balance.**
- **Common reading problems generated by traditional teaching are avoided through direct instruction. A comparison follows.**

Reading Problem	Reading Mastery approach
Unsure of sounds in decoding	All sounds taught to mastery.
Dropping of medial vowels	All sounds blended left to right so that no sounds are dropped.

tional programs for at-risk students in the primary grades have enduring effects on students' lives. These educators argue that students who develop academic competence in reading, language, and mathematics in the primary grades are more likely to benefit from any type of instruction in higher grades. Children who can read, for example, will always be able to learn new material, regardless of the quality of teaching in later years. In addition, if young students feel competent, they are more likely to approach learning positively, even when they encounter difficult academic and social situations in inner-city schools.

Because of this debate, the findings of a recent longitudinal follow-up study of over 1,000 low-income minority students in compensatory education are illuminating. In both rural and urban areas, we found positive long-term effects, with students achieving higher reading, language, and mathematics scores on standardized tests than students who either had not participated in direct instruction or who had participated in other programs. Participating in direct instruction also lowered dropout rates and raised the proportion of students applying to college.

Project Follow Through

At the time of its inception in 1968, Project Follow Through was the largest educational experiment in history. The U.S. Office of Education implemented Project Follow Through by applying innovative programs from 20 universities and research centers to the real world of inner-city and rural schools to determine their effectiveness for educationally at-risk students. Twelve of these interventions were evaluated, including the direct instruction program developed by Engelmann and Becker (Becker et al. 1981) and the cognitive curriculum developed by Weikart and his colleagues.

Among the inner-city schools chosen for the experiment were those in in Flint, Michigan; New York City; East St. Louis, Illinois; and Washington, D.C. The rural schools included were in Uvalde, Texas; and Williamsburg County, South Carolina. At that time, the U.S. Census ranked Williamsburg County as the poorest county in the 48 mainland states, with one of the highest illiteracy rates in South Carolina.

Abt Associates, who conducted an independent evaluation, concluded that direct instruction was the most effective in teaching academic skills in mathematics, reading comprehension, and language (Stebbins et al. 1977). Low-income students in the four-year kindergarten-to-third-grade direct instruction programs performed at or near the national norm on standardized achievement tests in reading (median of 41st percentile), mathematics (median of 48th percentile), and language (median of 50th percentile), often significantly above their peers in traditional programs in local schools. In contrast, at-risk students using David Weikart's Cognitive Curriculum performed at the 21st percentile in reading and at the 11th percentile in mathematics (Stebbins et al. 1977). Direct instruction students also produced the highest scores in self-concept, self-confidence, and sense of personal responsibility for success or failure.

Two features that distinguished direct instruction from the other Follow Through models were the curriculum and assistance to teachers. The curriculum taught skills in a detailed, step-by-step process, and teachers were provided with specific remedies to their problems.

Longitudinal Study

In June 1981 and June 1982, the first two groups of Follow Through students were slated to complete high school. We decided to investigate whether direct instruction in the primary grades had an effect on their high school careers.

A major problem plaguing our study was finding students in each neighborhood comparable to those in the Follow Through program. By using information from welfare agencies, we found a comparison school for each Follow Through school with equiva-

	Errors are immediately corrected so they are not "learned."
Dropping of first sound when saying a decoded word	**Students are taught not to stop between sounds when decoding. Initial sounds are not forgotten, making sound blending easier.**
Guessing at words using first and last sound and context clues.	**All words are left to right. Guessing is unnecessary as all sounds are known.**
Disfluent reading	**Students build fluency by reading words and sentences "the fast way" after decoding, timed reading with error limits, rereading sentences in which an error was made to ensure accuracy and fluency, and modeling after the teacher.**
Poor comprehension	**Comprehension is enhanced because reading ability is fluent and firm. Comprehension questions develop thought processes at K and 1 levels.**
Inattentive to reading	**Instead of a turn "now and then" to respond or read, each student is continually involved throughout the lesson with group responses on signal, as well as individual turns.**

Our goal is to teach all students to read well. The traditional method in K-1 adequately serves approximately two-thirds of the students. In our pilot study we found that the direct instruction, Reading Mastery method serves three-thirds in a superior manner.

Reference

Schweinhart, Lawrence J., David P. Weikart, and Mary B. Larner. "Consequences of Three Preschool Curriculum Models Through Age 15." *Early Childhood Research Quarterly* 1, 1 (1986): 15–45.

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