

# FOREWORD

by J.E. Stone, Ed.D.

## **Closing America's Achievement Gap: A Powerful Tool is Being Ignored**

History shows that innovations with obvious benefits are often ignored and resisted for decades or even centuries. Take the case of citrus fruit as a treatment for scurvy.

Prior to 1750, scurvy was a horrific problem on long sea voyages. As author Jonathan Lamb notes, "In 1499, Vasco da Gama lost 116 of his crew of 170; in 1520, Magellan lost 208 out of 230... all mainly to scurvy."

You would think that any promising treatment would be readily adopted—but it wasn't.

In a 1601 voyage from England to India, British captain James Lancaster gave three teaspoons of lemon juice per day to the sailors on his flagship. The crews of the other three ships under his command received none. Halfway through the voyage, 110 of 278 sailors on the three no-lemon-juice ships had died of scurvy, while those on the flagship stayed healthy.

Incredibly, Lancaster's experiment was ignored for nearly 150 years! It wasn't until a shipboard physician who knew of Lancaster's findings tried a similar experiment in 1747 that citrus was again evaluated as a cure for scurvy. Eventually, limes became a standard provision in British ships—but not until 1795—another 48 years after Lancaster's results had been confirmed!

The saga of Direct Instruction (DI) is remarkably similar to the story of Lancaster's cure for scurvy. Invented nearly 50 years ago, DI is a scripted, step-by-step approach to teaching that is among the most thoroughly tested and proven in the history of education. It works equally well for general education, gifted students, and the disabled, but surprisingly remains little used.

DI was the clear winner in the federal government's 10-year Follow Through project—the largest study in history to compare different approaches to instruction. In the 40 years since Follow Through, DI has repeatedly been shown to be effective with all kinds of students—from at-risk and struggling preschoolers to

top performers in middle school. Yet, despite its demonstrated effectiveness and an acute need for improved schooling outcomes—over two-thirds of all fourth graders are not proficient in reading—most teachers know little about it.

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DI works so well that its author—Siegfried “Zig” Engelmann—has a standing offer to wager \$100,000 on a contest between DI and any other type of reading instruction. In forty years, no one has accepted his challenge.

## Why isn't DI more popular?

So why isn't DI more popular? Critics—most of them outside the classroom—have a litany of complaints, all duly noted and refuted in this report. Their overriding reservation, however, is that DI contradicts much of what educators are taught to believe about “good” teaching.

DI is old-school. It uses teaching practices that were scorned by Progressive Era reformers but widely used until education was swept up in the cultural revolution

of the sixties and seventies. These include teacher-led exercises, skill grouping, choral responding, and repetition. DI also provides a carefully designed and tested script, not just a content outline or lesson plan from which the teacher endeavors to create an effective lesson.

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Essentially, DI teaches academic lessons the same way great trainers and coaches teach the fundamentals in sports. It identifies key skills, teaches them first, and then adds to that foundation. It builds mastery through practice and intervenes early to prevent bad habits. Unlike virtually any other approach to instruction, it is built on the premise that the program is responsible for the results. If the student has not learned, the program has not taught.

While these features are what make DI so extraordinarily effective, they are

profoundly at odds with the beliefs about good teaching that have come to dominate education. DI is rejected not because it doesn't work—it does—but because it challenges the validity of those beliefs.

For decades and especially since the sixties, teachers have been taught to be “a guide on the side, not a sage on the stage.” This ideal regards Direct Instruction and similar approaches as the antithesis of good teaching. Thus, education professors and theorists denigrate DI's teacher-led practice as “drill and kill,” its high expectations as “developmentally inappropriate,” and its emphasis on building a solid foundation of skills as “rote-learning.” They complain that DI interferes with teacher autonomy and student creativity, and is otherwise at odds with “best practices.”

DI does in fact confine students and teachers to a specific sequence of learning interactions, but by doing so it produces superior results. As studies have repeatedly shown, DI's step-by-step approach is more effective than either the individualized interventions created by teachers or the improvised programs and practices favored by DI's critics. Indeed DI programs are so

carefully constructed that some subjects can be taught by a computer. For example in Georgia, high school students using a computer-based version of DI called *Fun-nix* were more successful in teaching reading to Head Start children than were the regular teaching staff who used conventional methods.

The ideal of the teacher as a facilitator of student-led learning activity has hindered the adoption not just of DI but of virtually all teaching practices that are designed to attain specific curricular objectives. In this regard, the training typically received by teachers is not merely flawed, it is detrimental to the aims of standards-based educational reform. Rather than preparing teachers to be confident directors and managers of classroom learning, most teacher preparation programs instill a reluctance to use DI and similar results-oriented methodologies.

Clearly, there are occasions when teachers can be effective as guides and facilitators, but these tend to be in the latter, not the beginning, stages of learning. Beginners progress most quickly and easily when they have clear direction, close monitoring, and encouragement.

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School districts can re-train teachers to become classroom leaders and to use methodologies like DI, but doing so is often an uphill battle. To maintain a staff that is capable of carrying out such a program, a district must have leadership, training, and supervision that are capable of making progress against a headwind of collegial skepticism. For that reason, DI programs often sprout but later wither if the charismatic leader who nurtured the program moves on in his or her career.

## America's Needs and the Promise of DI

Fortunately, the last 15 years have seen a gradual shift away from theory-driven practices such as whole language reading instruction and toward empirically validated methodologies like Direct Instruction. Extensive assessments of reading instruction by the National Research Council and the National Reading Panel have vindicated the key components of Engelmann's approach while finding many of the popular alternatives to be unproven or invalid.

Direct Instruction is not a silver bullet that can overcome all of America's student achievement challenges, but it can dramatically improve achievement out-

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comes in key areas like reading and math. Improvement is desperately needed. Not only are two thirds of fourth graders below proficient in reading, 60% are below proficient in math. These are deficiencies that handicap children for the rest of

their educational careers, and indeed, the rest of their lives.

As learners become discouraged, progress requires increasingly heroic remediation—a significant burden on teachers and an increasing drag on the progress of all students. DI can relieve both of these restrictions on school performance—especially at the middle school level—by greatly reducing the gap between the undertaught high achievers and the overwhelmed low performers.

Teachers and principals who want to know more about Direct Instruction will find Shepard Barbash's *Clear Teaching* to be a worthy introduction. He summarizes the case for DI, supports it with endnotes and appendices, and explains why DI remains controversial among educators despite its record of effectiveness.

More resources on DI are available at [www.ClearTeaching.org](http://www.ClearTeaching.org). These include references to video and other online resources as well as contact information for ex-

perts, trainers, and speakers who can provide online or onsite introductions to DI.

We ask educators to set aside their theories and preconceptions about learning and to consider the testimonials of formerly skeptical educators who have experienced DI's effectiveness firsthand. DI confronts what may be America's greatest educational challenge: the enormous numbers of children who are promoted from grade to grade with woefully deficient basic skills. The comfort that derives from familiar habits is important, but the children are the top priority.

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The Education Consumers Foundation is a consumer organization—like the publisher of Consumer Reports—except that we focus exclusively on education. We are an independent non-profit and have no financial connection to or interest in Direct Instruction or any other education program. After searching for practical and proven options that could have a substantial impact on student achievement, we simply concluded that the use of Direct Instruction in preK-3 would be the single most cost-effective step that most school districts could take.

We at ECF believe that the educational failures in America's public schools are not the inevitable product of a child's social and economic circumstances; rather, they reflect a man-made dilemma that can be substantially alleviated by more effective schooling—especially by better preK-3 reading instruction. Success in early schooling will not guarantee future school success, but it will greatly enhance the chances of success for the approximately 70% of America's children who now face very long odds. Until something more dependable and cost-effective is demonstrated, we believe that Direct Instruction is the best way to improve those odds for millions of children.

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