

Direct Instruction

news

ADI Effective School Practices

DON CRAWFORD and RANDI SAULTER, Editors

The Frustration of Follow Through... and the Success of DI

For those of us who weren't involved in the Follow Through project, the story is sometimes hard to believe. The story begins with "let's find out what model of education works best" and then is followed by suppression of the results. Why weren't they excited to find something that worked? What were they thinking? This issue of the *DI News* brings you the inside story.

Begin by reading Zig Engelmann's prologue. You'll be fascinated by his detailed recollection (abetted by careful research of the records) of the Follow Through fiasco. Those of you who haven't yet read Zig's book, *Teaching Needy Kids in our Backward System: 42 Years of Trying*, are in for a treat. You will find yourself wanting to read the rest of the story. A word of warning: it's strong stuff—read it in a place where tears or angry outbursts are acceptable. There's really no other response.

Despite the official rejection of Follow Through, our Direct Instruction programs continue to effectively educate children who have been failed by other teaching methods. We have another set of success stories to share in this issue. Their breadth is testimony to the fundamental power of DI. We have the great leaps made by the middle school students at Breed Middle School in Lynn, MA. (Why aren't more people embarrassed about middle school students who weren't taught how to read?) From

North Carolina we have a tale of the use of *Reading Mastery*, *Language for Learning*, and *Corrective Reading* in three elementary schools. The use of DI improved performance in all grades in reading over several years, and for the first time the schools met all their reading goals. We have an amazing story of a school for the deaf in Houston, TX, that is making Adequate Yearly Progress by using Direct Instruction programs for reading and language. And our final success story is of Nay Ah Shing school, which is a Native American school in Minnesota using DI. The great success of this tribal school along with the other success stories in this issue demonstrate that DI works with a wide range of students.

In addition to these success stories we have the Excellence in Education Awards from the annual ADI conference. These inspiring stories of people who made it work "out in the field" this past year are well worth reading. And our congratulations go out to the winners. What an honor!

But what to do when it isn't working? What does it mean when a school is not having great success with DI? It means something isn't being done as well as it could be. We've included a piece that gives a number of "Remedies for Problems in Mastery"—when students aren't mastering material as well as they should. The easy answer is to redo the lessons, but that can be

a trap if the person redoing the lesson repeats the mistakes made the first time the lesson was taught. Some teachers and schools spend so much time redoing lessons that their students don't finish a level each year. When students don't finish their grade level each year, they begin to fall

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Direct Instruction News

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Contribute to DI News:

DI News provides practitioners, ADI members, the DI community, and those new to DI with stories of successful implementations of DI, reports of ADI awards, tips regarding the effective delivery of DI, articles focused on particular types of instruction, reprints of articles on timely topics, and position papers that address current issues. *The News'* focus is to provide newsworthy events that help us reach the goals of teaching children more effectively and efficiently and communicating that a powerful technology for teaching exists but is not being utilized in most American schools. Readers are invited to contribute personal accounts of success as well as relevant topics deemed useful to the DI community. General areas of submission follow:

From the field: Submit letters describing your thrills and frustrations, problems and successes, and so on. A number of experts are available who may be able to offer helpful solutions and recommendations to persons seeking advice.

News: Report news of interest to ADI's members.

Success stories: Send your stories about successful instruction. These can be short, anecdotal pieces.

Perspectives: Submit critiques and perspective essays about a theme of current interest, such as: school restructuring, the ungraded classroom, cooperative learning, site-based management, learning styles, heterogeneous grouping, Regular Ed Initiative and the law, and so on.

Book notes: Review a book of interest to members.

New products: Descriptions of new products that are available are welcome. Send the description with a sample of the product or a research report validating its effectiveness. Space will be given only to products that have been field-tested and empirically validated.

Tips for teachers: Practical, short products that a teacher can copy and use immediately. This might be advice for solving a specific but pervasive problem, a data-keeping form, a single format that would successfully teach something meaningful and impress teachers with the effectiveness and cleverness of Direct Instruction.

Submission Format: Send an electronic copy with a hard copy of the manuscript. Indicate the name of the word-processing program you use. Save drawings and figures in separate files. Include an address and email address for each author.

Illustrations and Figures: Please send drawings or figures in a camera-ready form, even though you may also include them in electronic form.

Completed manuscripts should be sent to:

ADI Publications
P.O. Box 10252
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Acknowledgement of receipt of the manuscript will be sent by email. Articles are initially screened by the editors for placement in the correct ADI publication. If appropriate, the article will be sent out for review by peers in the field. These reviewers may recommend acceptance as is, revision without further review, revision with a subsequent review, or rejection. The author is usually notified about the status of the article within a 6- to 8-week period. If the article is published, the author will receive five complimentary copies of the issue in which his or her article appears.

Frustration... continued from page 1
behind and their achievement suffers. The piece provides some options to fix problems in mastery without having to sacrifice lesson progress. Next issue we will have a companion piece that gives some ideas to try to fix problems in lesson progress without abandoning the goal of mastery.

What happens in education when we don't employ "Scientific Thinking"?

We bring you four cautionary tales from Martin Kozloff. You may recognize some schools you've been in. We know we do.

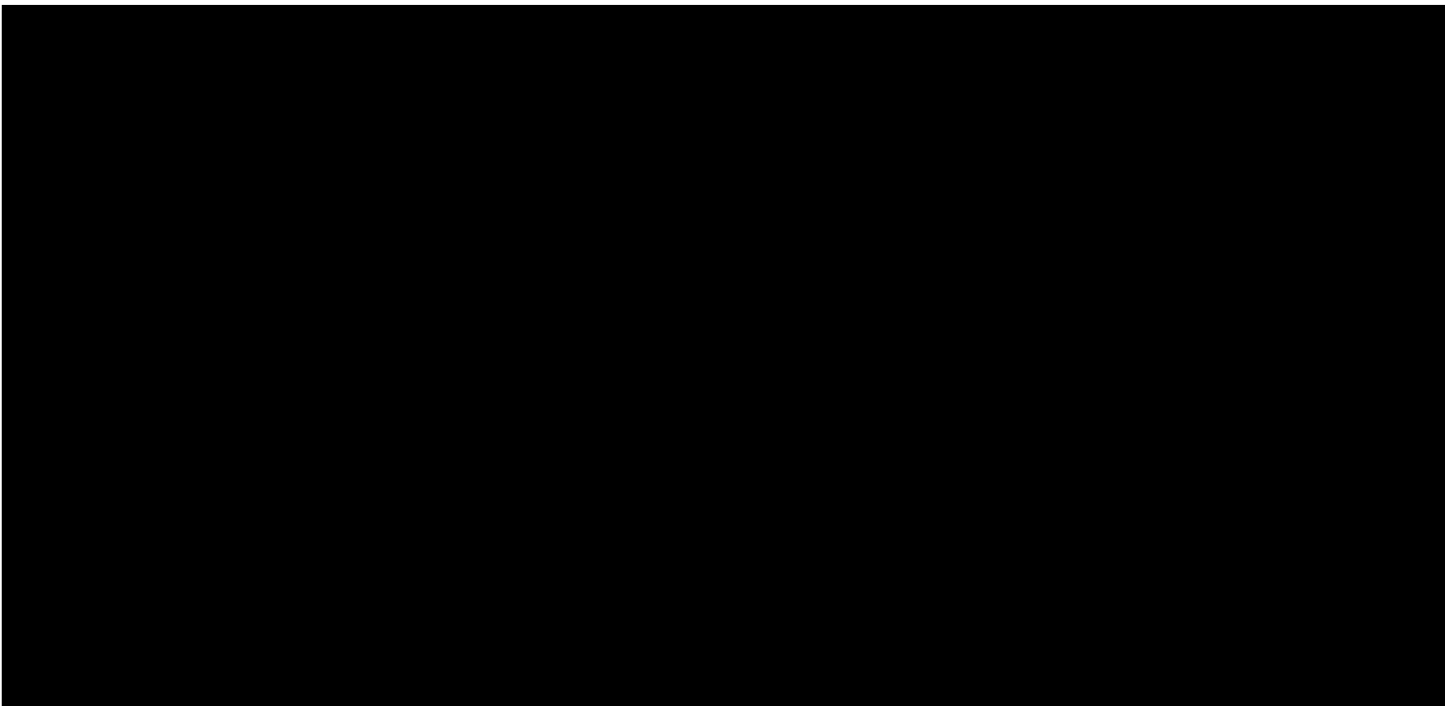
Finally, we have a favor to ask of you. Whenever ADI members gather over a beverage and talk, certain common topics come up. We thought it might be a lot of fun for us to share those with each other through the *DI News*. We will ask a question in one issue and then publish our members'

responses in the next issue. We are hoping many of you will join in and contribute a paragraph or so on the topic du jour (du issue?). Look for more information on page 5. We also welcome suggestions for a title for this soon-to-be regular feature. Come on, you know you want to do it. Let us hear from you!

We hope you find this issue of the *DI News* to be thought provoking, educational, or both. *ADI*



BRYAN WICKMAN, Executive Director, Association for Direct Instruction



EMELINE COKELET, Association for Direct Instruction

Excellence in Education Awards

Each year, the Association for Direct Instruction recognizes schools, teachers, and students for their commitment to and improvement in education. In July, DI educators from across the country honored the winners of the 2008 Excellence in Education Awards at the annual DI Conference in Eugene. Here are the winners' stories.

Wesley Becker Excellent School Award

American Preparatory Academy

Direct Instruction forms the foundation for reading, spelling, and mathematics for students at American Preparatory Academy (APA), a five-year-old charter school in Draper, UT.

Students receive instruction in small break-out groups geared toward their precise instructional levels, maximizing student engagement and performance. Teachers and instructors monitor students' performance closely on a weekly basis. The school's active coaching system ensures that teachers and instructors receive regular feedback and assistance. APA's hard work pays off—90% of students are at or above grade level.

"Because of the way APA is structured," noted parents Cheryl and Blaine Awerkamp, "no child is lost or left behind."

Founder and Director Carolyn Sharette was thinking of her own seven children when she and her sister, Laura—a mother of eight children—opened APA in 2003. Sharette had started another charter school in 1996, but when the school didn't show great test scores, she visited the best schools in the state to see how they did it. She discovered DI and took a job in one of Utah's top schools to learn more about DI, then opened APA.

"Our school was made possible because two moms needed something better for our kids," Sharette said when accepting the award. "But our school was made successful because

brilliant, amazing people like Zig (Engelmann) designed brilliant and amazing programs that work miracles."

With its success and commitment to DI, APA has helped three more DI charter schools open in Utah in the past four years, and in 2009 it will open The School for New Americans to serve Salt Lake City's refugee population.

Teaching and Implementation Support

Kathleen Dowd

Kathleen Dowd, a master teacher/trainer in the Windward Oahu and Honolulu school districts in Hawaii, has served as a trainer, coach, counselor, and DI advocate to numerous teachers and administrators. A spe-

cial education instructor for 21 years, she has spent most of her career working with a largely native Hawaiian student population. She has been a master teacher for Pihana Na Mamo: The Native Hawaiian Special Education Project, a longstanding federally funded effort to improve the achievement of Native Hawaiian children in Hawaii.

Dowd has helped countless teachers and schools adopt DI programs, even when the transition to DI hasn't been easy, wrote Gloria Kishi, an educational specialist with the Hawaii Department of Education, in her nomination letter. "Because of Kathleen's unwavering belief in the students and their abilities to learn, she has been persistent and steadfast in expecting sound instruction and high student performance."

The schools and organizations listed are institutional members of the Association for Direct Instruction. We appreciate their continued support of quality education for students.

American Preparatory Academy
Draper, UT

Barren County Board of Education
Glasgow, KY

BCIU
Reading, PA

Beacon Services
Milford, MA

Brighton Elementary
Seattle, WA

Cache Valley Learning Center
Logan, UT

Chief Leschi Schools
Puyallup, WA

City Springs School
Baltimore, MD

Danville Schools
Danville, KY

Educational Resources, Inc.
Cape Coral, FL

Evergreen Center
Milford, MA

Exceptional Learning Centre
Ajax, Ontario

Foundations for the Future Charter Academy
Calgary, AB

Franklin Pierce Schools
Tacoma, WA

Gering Public Schools
Gering, NE

JP Associates
Valley Stream, NY

Keystone AEA Instr. Services
Elkader, IA

Laurel Nokomis School
Nokomis, FL

Legacy Preparatory Academy
North Salt Lake City, UT

LICA
Mt. Prospect, IL

Livermore Joint Unified School District
Livermore, CA

Los Molinos Unified School District
Los Molinos, CA

Morningside Academy
Seattle, WA

Mountain View Academy
Greeley, CO

Mt. Vernon Nazarene University
Mt. Vernon, OH

National Institute for Direct Instruction
Eugene, OR

OCISS-ISB-Languages Section
Honolulu, HI

Oconomowoc Developmental Training Center
Oconomowoc, WI

Park Elementary School USD 428
Great Bend, KS

Saint Anthony School
Milwaukee, WI

School District of New Richmond
New Richmond, WI

The Gregory School for Exceptional Learning
Ancaster, ON

Wildwood Academy
Oakville, ON

Edward Kame'enui, a colleague and former mentor, worked with Dowd to implement a beginning reading model at Waimanalo Elementary School as part of Pihana Na Mamo and called her "instrumental to the success of our school-wide implementation."

"Without her," Kame'enui wrote in a letter of support for her nomination, "we would not have succeeded, nor would we have lasted in our implementation for more than a day. Because of her, however, we lasted for more than two years (perhaps longer) and expanded our efforts to numerous schools throughout Hawaii."

"Our experience at Waimanalo Elementary makes clear how one person at a school can (and does) make an enormous difference," Kame'enui continued. "Simply put, Kathleen Dowd gets it! Moreover, she has gotten it 'right' for children of Native Hawaiian ancestry for a long time."

Teaching

Stacey Hanna and Dorothy Glewwe

The classrooms of Stacey Hanna and Dorothy Glewwe at City Springs School in Baltimore, MD, "have always functioned like a high-performance machine," said their principal, Rhonda Richetta. "Not only do their students perform firmly at mastery, but they possess an extraordinary excitement for learning."

The pair teach low-performing kindergarten and first-grade students, many of whom also have behavior problems. For five years, Hanna and Glewwe worked as a team in one classroom, raising the academic achievement of the most difficult kids to teach, Richetta said. While earning her degree to become a classroom teacher, Glewwe worked as Hanna's assistant, and Hanna coached her.

In 2007, Richetta assigned the pair to different classrooms—Glewwe to

kindergarten and Hanna to first grade—and the students made excellent progress in both grades, Richetta said. Glewwe led her 34 kindergartners through *Reading Mastery I*, Lesson 130, and beyond; all of Hanna's 36 first-graders started with *Reading Mastery I*, Lesson 1, and progressed through the final lesson.

Laura Doherty, project director with the National Institute for Direct Instruction, described both educators as committed and passionate about helping students achieve. "These two teachers taught side-by-side for many years and gave countless at-risk students a tremendous year of instruction and love," she said. "Now they are each leading a classroom with fierce determination to serve their students in a way that would make Zig himself proud."

Michael Hanlon

Hundreds of young students have learned to read under the passion and guidance of Mike Hanlon. A kindergarten teacher at Mt. Helix Academy in La Mesa, CA, for the last 12 years, Hanlon uses Direct Instruction to teach his students reading, math, and language and utilizes DI practices to teach them a host of other important skills, said Barbara Moulaison, director of the school.

Hanlon "has a passion for teaching and a great love of children," Moulaison said. "His enthusiasm and positive attitude are contagious." While the median score for students who enter kindergarten at Mt. Helix is slightly above the 50th percentile, Hanlon's students consistently excel at reading and spelling, achieving close to or above the 90th percentile.

In addition to helping his students succeed academically, Hanlon also guides his students to love learning, take pride in themselves, and be caring friends and responsible citizens. "He shapes student behavior with amazing amounts of specific, contingent, and very sincere praise, as well as many other payoffs for their efforts, improvement, and success," Moulaison said.

"However, the greatest reward for his students is his attention and positive regard," she continued. "You can literally see them swell with pride when he comments on their growing ability to read, their consideration and helpfulness towards a friend, or their responsibly citizenship when helping to keep our school clean. ... Mike truly believes that every child can learn."

Dear friends in the DI community,

What do you remember most about your first experience seeing or using DI?

You no doubt have plenty of stories to share about your first time with Direct Instruction, whether it was 30 years ago or last month. We hope to hear these stories—and learn from them—in upcoming issues of the DI News.

Send us your responses—short answers are fine—to Don Crawford, dc0843@aol.com, or Randi Saulter, itsrandi@aol.com. Let us know your name and your affiliation (school, organization, synagogue, rifle club, political party, etc.). Have a good idea for a future question? Let us know that, too!

—Don & Randi, editors



Implementation Support

Sara Krebs, Becky Wadsworth, Patty Willis, and Kelly James

In 1996, Cache County School District in northern Utah set a goal that all children in the district read proficiently by the end of third grade. District reading specialists Sara Krebs and Patty Willis joined ESL director Kelly James, Title I coordinator Becky Wadsworth, and two other educators (now retired) to form a team that would guide the district's literacy efforts.

The team started amid skepticism from others in the district for the need for reform. They began building consensus by forming a Literacy Committee comprised of teachers at various grade levels representing each elementary school. The also trained a DIBELS testing team that has continued to administer DIBELS benchmark testing three times a year and deliver data that influences instructional focus and teaching behaviors and boosts test scores. The team continued to identify and allocate funding for DI materials, training, and personnel to every school in the district.

Under the leadership of the literacy team, Cache District has increased its use of DI programs district-wide to all instructional levels. With about 1,000 students in each grade level, Cache District scores are now among the highest in the state, third only to two districts with less than 100 students per grade level.

"These four women have led by example, forcing no one or no school to use DI materials," said Julie Landeen, retired special education director for the district. "Schools and teachers in Cache County School District are held accountable for results, and the team has provided training in Direct Instruction programs while celebrating the gains made by students in those schools in which the materials have been implemented. As student scores have risen, more schools have chosen to use DI materials.

"What a difference Sara, Becky, Patty, and Kelly are making for students in their school district, and what a wealth of information and experience they have to lend to their colleagues!"

Wayne Carnine Student Improvement Award

Kaylin Tekell

Kaylin entered fifth grade at Cache Valley Learning Center in Logan, UT, after five years of failure, scoring around the 20th percentile in math and as low as the 10th percentile in some measures. With low self-confidence about her performance, she wouldn't even try to do her work if her

teacher was not standing nearby, said Doug Carnine.

But over the course of one school year Kaylin's confidence improved, as did her skills. Her scores went up to around the 50th percentile in basic skills and almost the 75th percentile in applications. In test taking, she attempted problems she had never encountered before. "As she grew in confidence during the year," Carnine said, "the teacher could actually move farther away from her and she would still do the work.

"That's really what we're all about," Carnine continued. "We're about the academics as providing the legitimization for students to have self-confidence that they have earned and that



National Institute for Direct Instruction

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- ◆ Additional Training and Support Services Available
- ◆ Research and Evaluation Opportunities



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- ◆ Student Test Summary Forms
- ◆ Coaching DVD

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Toll Free 1.877.485.1973 or info@nifdi.org

they deserve and that will serve them well in the rest of their lives.”

Hall of Fame

Linda Youngmayr and Milly Schrader

Youngmayr and Schrader came along during Project Follow Through’s first year at the University of Oregon, at a time when the project “really needed trainers,” said Zig Engelmann. Young and inexperienced teachers but good students, the women were sent across

the country in the early 1970s to manage Direct Instruction projects and train teachers—in Mississippi, Arkansas, and numerous other sites.

“It was tough times,” Engelmann recalled. “We were sending kids out into the field to do jobs that we had no idea that they could do by virtue of their experience, but by virtue of their soul they could do it.” Youngmayr and Schrader were working with administrators and training teachers twice their age. They “were the two firemen,” Engelmann said.

Schrader later became a principal and Youngmayr a classroom teacher and consultant. Both women said what they learned from Engelmann during Follow Through and beyond has continually inspired them in their careers as educators.

Youngmayr and Schrader “really did a very good job,” Engelmann said. “They absolutely deserve to be in the Hall of Fame. They carried their weight.” *ADI*

Success Stories

Houston Blue Ribbon School's Deaf Population Achieves AYP With Direct Instruction

Deaf students at T.H. Rogers Elementary School have achieved remarkable advances in language development by using SRA/McGraw-Hill's Direct Instruction programs. The school includes three populations: gifted and talented, multi-impaired, and deaf students. Once educators implemented DI in Grades K-8 at the start of the 2002-2003 school year, they witnessed an increase in phonemic awareness among younger students and improved sentence structure among older students.

DI is a teaching methodology that provides a structured learning process, breaking learning strategies into sub-skills that students practice to mastery and continuously review. Two programs, *Language for Learning* and *Reading Mastery*, are taught in Grades K-3, and a third program, *Corrective Reading*, is used in Grades 3-8 with struggling readers.

Principal Nancy Manley said that diagnosticians who re-evaluate students

every three years have seen a dramatic increase in students' reading skills since the DI programs were implemented.

"Direct Instruction is a very phonetic program. Because our students can't hear sounds, we first teach them *Visual Phonics* (from the International Communication Learning Institute) by signing. Once they are able to see that sound, we introduce them to *Language for Learning* and *Reading Mastery*," Manley explained.

Special Education Students Achieve AYP

Special education students are part of Texas' education accountability system. Consequently, deaf students at T.H. Rogers Elementary School are held to the same standards and must take the State-Developed Alternative Assessment (SDAA) each year to measure progress.

They continue to score well, thanks to DI, and even achieved Adequate Yearly Progress (AYP) the first year it was measured among special education students in Texas during the 2003-2004 school year. They achieved AYP again during the 2004-2005 school year. AYP is the cornerstone of the No Child Left Behind Act and measures academic achievement among all schools and their subgroups of students. T.H. Rogers Elementary School also was named a Texas Exemplary School for 2005, which Manley said would not have been possible without DI.

T.H. Rogers Elementary School, Houston, TX

About the School:

Grades:	K-5
Number of Students:	300
Test(s):	SDAA
Reduced Price Lunch:	42%

About the Students:

African American:	16%
Caucasian:	25%
Hispanic:	30%
Asian:	29%
Other:	—
ELL:	—

Dr. Beverly Trezek, assistant visiting professor in deaf education at The Ohio State University, analyzed student data collected during the 2004-2005 school year. She noted that, given one year of DI, supplemented by *Visual Phonics*, Kindergarten and Grade 1 students who are deaf or hard of hearing demonstrated improvements in beginning reading skills.

She assessed their progress using the Wechsler Individual Achievement Test-II to measure Word Reading, Pseudoword Decoding, and Reading Comprehension. When raw scores were calculated into grade equivalents, students performed better than the national population average for students who are deaf or hard of hearing.

“When using the Direct Instruction reading programs supplemented by *Visual Phonics*, we can begin to see measurable progress on standardized measures of reading achievement for students who are deaf or hard of hearing. This is an encouraging finding given that this population of students historically has struggled to acquire critical beginning reading skills, such as phonemic awareness and phonics,” Trezek said.

Manley said teachers at T.H. Rogers Elementary School are convinced that DI helps students meet their goals. “Parents of our deaf children have seen a higher incidence of them reading at home, and our teachers know that Direct Instruction is the reason,” she said.

About T.H. Rogers Elementary School

The U.S. Department of Education named T.H. Rogers Elementary School a No Child Left Behind Blue Ribbon School in 2004. The Blue Ribbon School Program recognizes schools that make significant progress in closing the achievement gap, as is the case with the school’s deaf population.

Serving approximately 300 students in Grades K-5 in the Houston Independent School District, this school’s student population is 30% Hispanic, 29% Asian, 25% Caucasian, and 16% African American. Forty-two percent of the children qualify for free or reduced-price lunches. For more information about T.H. Rogers Elementary School, visit <http://ms.houstonisd.org/THRogers>. *ADI*

Success Stories

Native American School Uses Reading First Grant to Implement Direct Instruction

When educators at Nay Ah Shing School received a Reading First grant, they implemented SRA/McGraw-Hill's *Reading Mastery Plus* as their core reading program in Grades K–3 at the start of the 2004–2005 school year. Kindergarten immediately embraced the program, and success continued in all grades, as exemplified by DIBELS and Stanford-10 scores.

School-wide, the percentage of students scoring at the benchmark level on DIBELS jumped from 22% in fall 2004 to 69% in spring 2006, with help from *Reading Mastery Plus*. In both the 2004–2005 school year and the 2005–2006 school year, scores on DIBELS for each grade level jumped from the

beginning of the year to the end of the year. (See Figures 1 and 2.)

Reading Coach Tony Scheler said one of the reasons *Reading Mastery Plus* is so successful with students is because it keeps them focused. “Direct Instruction works at our school because it leaves nothing to chance,” he said. “We’re constantly monitoring, assessing, and regrouping students to ensure they are exactly where they need to be.”

Student success led educators to implement *Language for Learning*, another DI program, with preschool students at the start of the 2005–2006 school year. “By the time they begin Kindergarten, they are more than

ready to sit and focus,” he said. Most of them read by Halloween and move quickly into higher levels.”

The Association for Direct Instruction (ADI) presented Nay Ah Shing School with the Wesley C. Becker Excellent School Award in 2006 for its effective implementation of *Reading Mastery Plus*. Becker was the senior founder of ADI, which provides training and assis-

Nay Ah Shing School, Onamia, MN

About the School:

Grades:	K-12
Number of students:	216
Test(s):	DIBELS, Stanford-10
Reduced Price Lunch:	N/A

About the Students:

African American:	—
Caucasian:	—
Hispanic:	—
Asian:	—
Native American:	100%
ELL:	—

tance for schools in implementing DI programs and behavioral practices.

Reading to Ride Camp

In addition to rigorous reading instruction during the school year, Nay Ah Shing School students get an additional 21 days of instruction during the summer.

Scheler started the Reading to Ride Camp on his farm during the summer of 2006 as a way to improve students' reading skills and encourage their love of reading. He plans to continue the camp each year and wrote the following synopsis after the first summer:

"As a reading coach I am continually trying to find ways to inspire children to read. When thinking of ways to inspire the students of Nay Ah Shing, I started to think of some of the inspirations in my life. At our farm we have horses and animals that are adored by our own children and me. What better way to get children excited than to combine some of the important things in my life, like horses and reading? I thought that children who have not been raised in the country would leap at the chance to ride horses and play with farm animals. Thanks to funding from Nay Ah Shing, the Reading to Ride Camp was developed.

"Students were picked up between 8:00 and 8:15 a.m. every day from their homes and bussed for a 45-minute ride to Avalon Acres for camp. When they arrived at the farm they ate breakfast and then started reading. Students were given 90 minutes a day of reading instruction. Students used *Reading Mastery Plus* and were able to continue from where they left off at the end of the year. Students were given instruction on picnic tables—sometimes in the barn or just outside the barn. Many times there were barn cats sitting on the table next to children as they read. Children would often rest their hands on the cats as they read through their story. The animals seemed to calm the children and keep them focused.

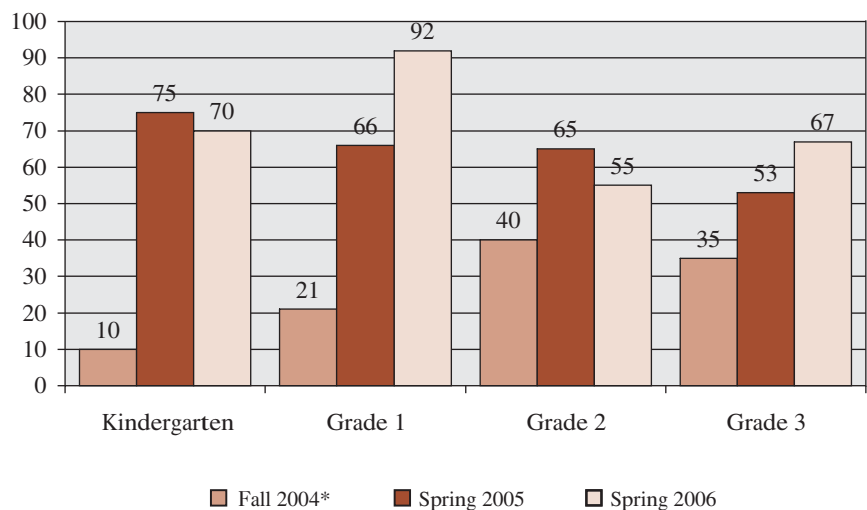
The children knew that if they worked hard and finished their 90 minutes of reading, they could ride horses or play with the animals.

"After the students finished their reading lesson, they were given riding instruction for the first two weeks. The smiles and looks on their faces when they got up onto the horses' backs for the first time were priceless. A lot of the students would have ridden all morning if they had been given the chance.

"After riding and other activities, the students were fed lunch and were given books to read to their parents as homework. Many students brought back their homework every day. Those that brought back their homework were given a horse-themed prize. Students were also given an opportunity to pick books that were donated to the camp for students to enjoy. Students were able to choose as many they wanted each day. Many of the students read the books that they picked out on the bus ride home. Some of the stu-

Figure 1

Percentage of Students Scoring at Benchmark in Reading

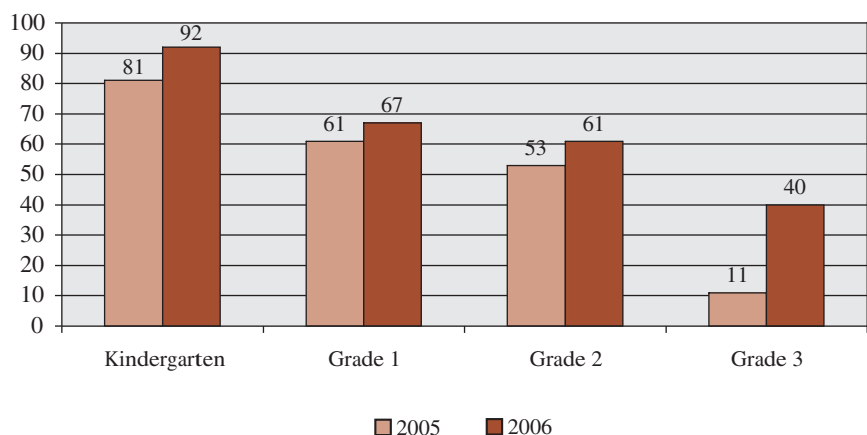


Source: DIBELS

*Before *Reading Mastery Plus* began.

Figure 2

Percentage of Students Scoring at Benchmark in Reading



Source: Stanford-10

dents would then go home and read the books to their siblings. Students left camp around 11:30 a.m. each day and arrived back home between 12:15 and 12:30 p.m.

“On the last day of camp, students were able to participate in a Fun Day celebration for completing the camp. After reading was completed, students participated in games. Some of the games that they played were Frisbee toss, bobbing for apples, sack race, and softball toss. Children

received prizes for winning each event. Hot dogs on the barbecue and root beer floats were eaten before they went home. The students that attended camp seem to have had a great time reading, riding, playing with the animals, and playing games.

“All students invited to the Reading to Ride Camp were also invited to Summer Enrichment. In all, the students who attended camp and Summer Enrichment received an additional 21 days of reading instruction during the summer. The Reading to Ride Camp

was a great experience and shows that there are many ways to inspire children to read.”

About Nay Ah Shing School

Serving roughly 216 Native American students in Grades K–12, this school is tribally operated by the Mille Lacs Band of Ojibwe.

For More Information

If you would like to learn more about success with DI programs in your school or district, please contact SRA-McGraw Hill at 1-888-SRA-4543. [*ADI*](#)

Success Stories

Corrective Reading Helps ELL Students Gain Multiple Years' Growth

When educators at Breed Middle School vowed to determine why so many students were struggling to read in the late 1990s, they discovered two reasons: teachers weren't using an

organized, uniform reading curriculum and students' decoding skills were at least two years behind average. Interestingly enough, the program they chose for remediation became an ideal

resource years later when the population of English Language Learners (ELL) continued to increase. SRA/McGraw-Hill's *Corrective Reading* helped those students gain multiple years of growth in just one year.

In September 2005, a group of struggling readers took the Woodcock Reading Mastery Decoding Subtest before *Corrective Reading* began. One special education student gained 13 months of growth after nine months with the program (see Figure 1), and an ELL student gained 15 months during that same period (see Figure 2).

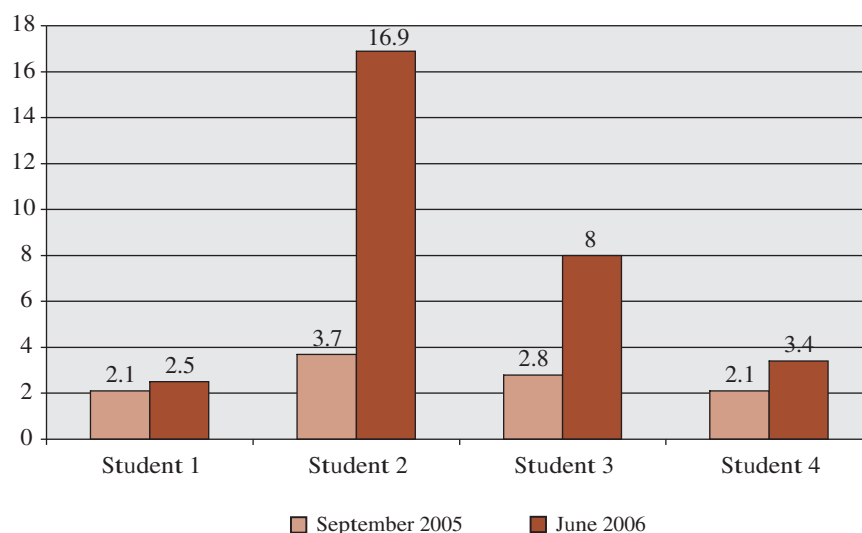
Implementing the Strongest Program

Lead reading teacher Donna Angelli said she and her colleagues knew in the late 1990s that the answer was to find a structured reading program to remediate decoding problems efficiently and effectively in large classes. Classes at Breed Middle School routinely have more than 25 students, many of whom are classified as ELL.

Teachers implemented *Corrective Reading* in Grades 6–8 during the 2001–2002 school year. Success was quick—the percentage of students scoring proficient on the English Language Arts portion of the Massachusetts Comprehensive Assessment System (MCAS) jumped 20 percent-

Figure 1

Percentage of Students Qualifying for Special Education After Being Referred



age points during the first year of implementation (see Figure 3).

Angelli said scores declined slightly in 2006 because of a large influx of special education students and ELL students reading below the Grade 3 level. Seventy-five percent of her students during the 2005–2006 school year didn't live in English-speaking homes.

"We grab these scared, fragile kids as quickly as we can to give them the decoding skills they need to boost their confidence and get them on their way. *Corrective Reading* gives me the tools to help them succeed," she said.

Despite the Grade 7 dip in scores, Grade 8 students outperformed the district in 2006: 61% scored proficient or advanced in English Language Arts, compared to 52% district-wide. "This shows what we can accomplish over time with our students," Angelli said.

"The very structure and predictability of *Corrective Reading* makes sense for students," she said. "And the point system within the program provides instant gratification, which means they buy in at the very beginning. The incentive is simple, yet extremely rewarding: 'I'm becoming a better reader each day.'"

Discipline Problems Decline

Success with *Corrective Reading* was quite quick on the disciplinary front as well.

Breed Middle School, Lynn, MA

About the School:

Grades: 6-8
Number of Students: 1120
Test(s): WRMT/MCAS
Reduced Price Lunch: 66%

About the Students:

African American: 14%
Caucasian: 38%
Hispanic: 33%
Asian: 15%
Multicultural: —
ELL: 14%

"Within two weeks, discipline problems virtually disappeared," Angelli said. "That's because *Corrective Reading* is so intense and engaging that students soon realized they were gaining the skills necessary to be successful. These kids are completely aware of what they are lacking, which really hurts and often manifests itself in inappropriate behavior. They'd rather have us think they are jerks than think they are stupid. The rapid rate at which students acquire skills and con-

fidence with this program quickly diminishes the need to act out."

New Year, Same Story

Principal James Ridley said math and social studies teachers continue to tell the same story every fall.

"At the beginning of the school year, struggling readers crouch down behind their textbooks so no one will call on them to read out loud," he said. "Within the first two weeks, they begin to acquire reading skills, gain

Figure 2

Individual Results for ELL Students' Grade Level Gains Following Nine Months of Corrective Reading

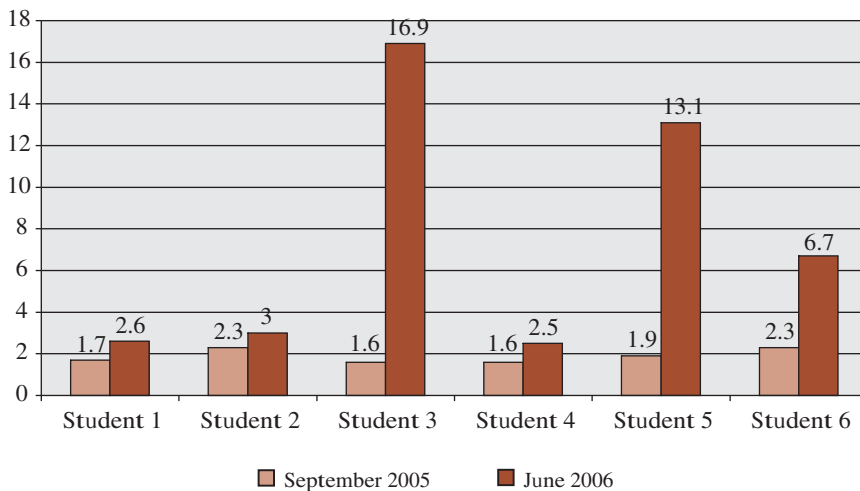
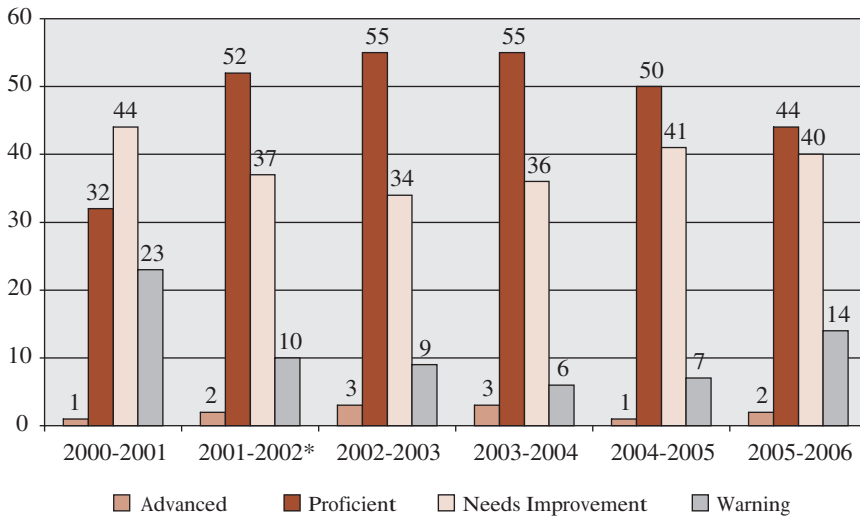


Figure 3

Grade 7 Performance Level Percentages in English Language Arts




confidence, and actually volunteer in class to read because they finally can.”

About Breed Middle School

Serving roughly 1,120 students in Grades 6–8, this school’s student pop-

ulation is 38% Caucasian, 33% Hispanic, 15% Asian, and 14% African American; less than 1% are multicultural. Sixty-six percent of the children qualify for free or reduced-price lunch, 14% are ELL, and 15% are special

education students. For more information on Breed Middle School, visit <http://breed2.lynnsschools.org>. 

Success Stories

Title I Schools in North Carolina District Meet All-State Reading Targets with Direct Instruction

Following the implementation of SRA/McGraw-Hill's Direct Instruction in three Title I Brunswick County elementary schools, each school met all reading targets for the very first time during the 2006–2007 school year. Their overall scores on the state's End-of-Grade Test (EOG) have also improved since DI began in fall 2004 (see Figure 1).

Belville Elementary School, Jessie Mae Monroe Elementary School, and Lincoln Elementary School had all been placed in the School Improvement category during the 2003–2004 school year because they had not achieved Adequate Yearly Progress (AYP).

DI's *Reading Mastery* began as intervention at the start of the 2004–2005

school year in each school's Kindergarten and was soon expanded to Grades K–5 for intervention.

Two additional DI programs were added as well: *Language for Learning* (in Kindergarten) and *Corrective Reading* (for intervention). By 2006–2007, Lincoln Elementary School exited the

School Improvement category because students had met reading goals for two straight years. The other two schools will exit the category if they meet their reading goals again during the 2007–2008 school year.

Faye Nelson, director of elementary education and Title I, said DI has been so successful at these schools that the need for intervention is phasing out, especially among older students who have experienced the programs since Kindergarten.

"Many of these students in Grades 3–5 were complete non-readers before Direct Instruction began," she said. "These are regular education students who had struggled for years, but now

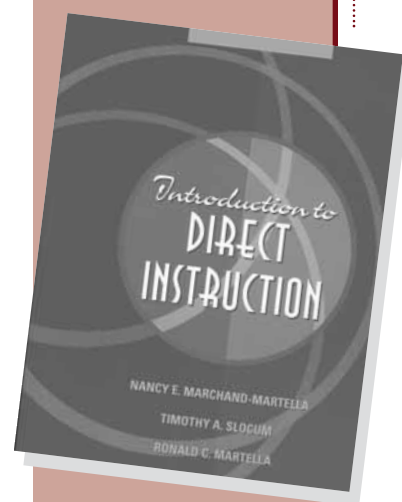
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they have developed the skills necessary to improve fluency and comprehension. Direct Instruction caught them up to the point where they are able to participate successfully in their regular classrooms.”

Tina Child, Direct Instruction lead teacher, said DI’s explicit, systematic instruction is what makes all the difference.

“Students are placed where they need to be, and then we systematically move them through the programs,” she explained. “We’re amazed by the incredible rate at which children can learn, especially those below grade level. It’s all because of the explicit instruction. I’ve seen students experience one to two years of growth in just one school year.”

Since DI has been so successful at these three schools, teachers have implemented its programs with at-risk students in all district elementary schools.

About Brunswick County Schools

Serving more than 11,640 students in Grades Pre-K–12, the district’s student population is 70% Caucasian, 23% African American, 6% Hispanic and less than 1% each Native American and Asian. Fifty-one percent qualify for free or reduced-price lunch. For more information, visit www.co.brunswick.k12.nc.us. [ADI](#)

Brunswick County Schools, Bolivia, NC

About the District:

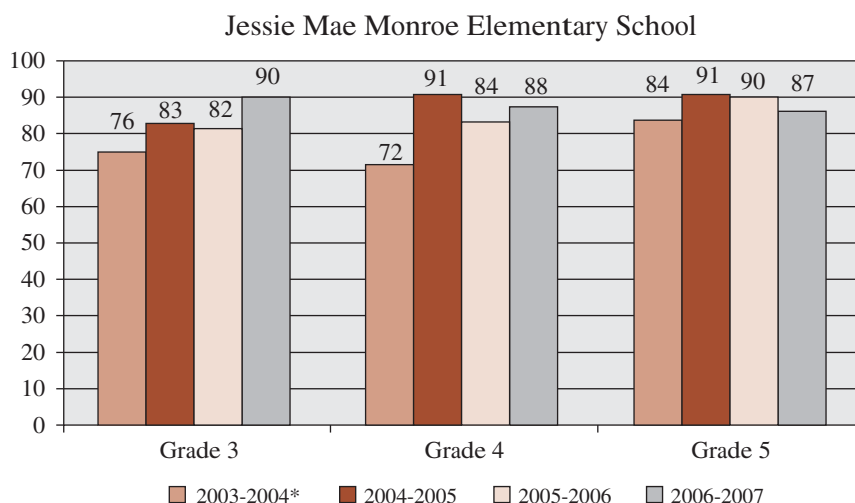
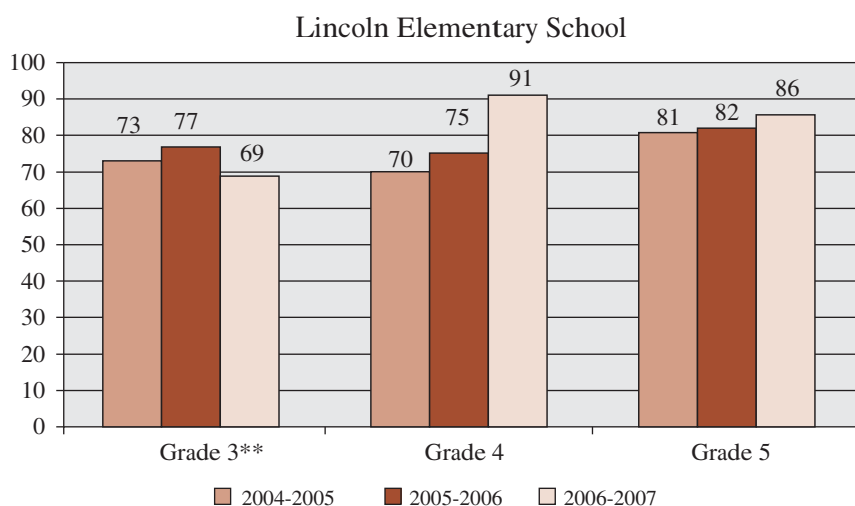
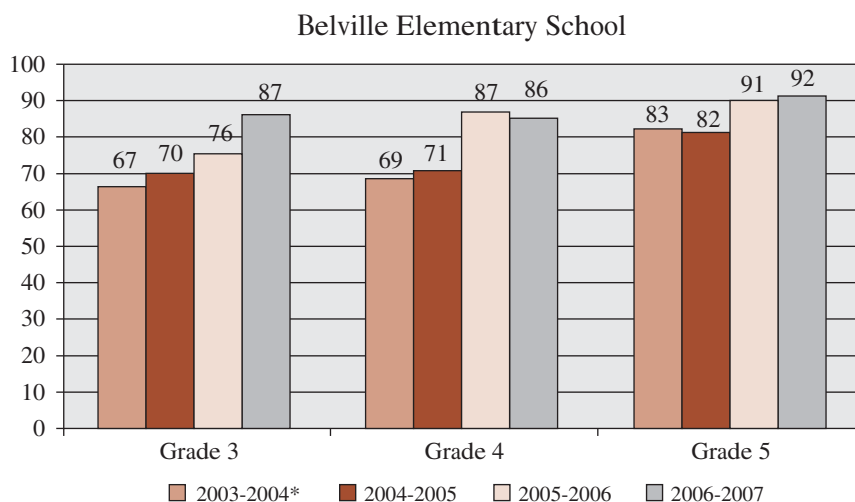
Grades:	PreK-12
Number of Students:	11,644
Test(s):	EOG
Reduced Price Lunch:	51%

About the Students:

African American:	23%
Caucasian:	70%
Hispanic:	6%
Asian:	<1%
Other:	<1%
ELL:	—

Figure 1

Percentage of Students Scoring At or Above Proficient in Reading



* Before Direct Instruction began.

** The Grade 3 score at Lincoln decreased in 2007 because of a large influx of new students.

Source: EOG

Remedies for Fixing Problems with Mastery (Without Sacrificing Lesson Progress)

What does a problem with mastery look like? School-wide DI implementations usually collect data on independent work and tests. Standard criteria for mastery are 85% correct or better on independent work and 90% or better on tests. Different people use criteria that differ somewhat, but generally not by more than 5%. A student who does not meet these criteria on three consecutive assignments or tests has a problem with mastery—the student is failing to learn at the level of mastery. A group is considered to have a problem in mastery when one-fourth to one-third of the students fall below these criteria.

What does a problem with mastery look like during oral presentations? Our first expectation is that each “part” is firmed—meaning a group repeats the part until they complete it once through at 100% accuracy. A part is a few answers, such as a row of words or a set of problems. If anyone in the group makes an error on any item in the part, the whole group repeats, or firms, the part until everyone can do the part without an error. How much part-firming is necessary depends upon the group and the skill of the teacher. But as a rule, as long as the teacher gets each part firm during the lesson, the group is not considered to have any problems in mastery. If so many parts have to be firmed, or firmed so many times, that lessons are taking two or three times as long to complete as expected, then there is a problem with mastery.

Once a group or an individual is found to have a problem with mastery, something has to be done to remedy the problem. The most common solution is to take as long as is necessary or to repeat the lessons over again. While

this response is effective (and it makes more sense than ignoring lack of mastery), redoing lessons sacrifices lesson progress to give time to ensure mastery. The problem is that both progress and mastery are critical for students to make adequate gains in academic achievement.

Luckily, teachers can take certain steps to deal with mastery without hurting lesson progress or negatively impacting academic achievement. The following is a list of 19 possible remedies (grouped into four main categories) for problems with mastery that can help without having to sacrifice lesson gains. The rest of this article

expands briefly on each of those 19 remedies.

A final point about these remedies is in order: Implementing these remedies requires a high level of teacher skill. If you are new to DI or haven't been coached much, you may find these remedies much easier to read about than to do. Don't be afraid to ask for help from someone more experienced. Someone may need to watch in your class or consult with you on how to actually make these things happen. You may find it takes some trial and error to get these remedies to work for you. It will be worth the effort because your students will achieve mastery and will continue to make good lesson progress. If students complete a level each year with mastery, they will continue to show academic gains year after year. And that's what we all want, isn't it?

Everyone likes getting mail...

ADI maintains a listserv discussion group called DI. This free service allows you to send a message out to all subscribers to the list just by sending one message. By subscribing to the DI list, you will be able to participate in discussions of topics of interest to DI users around the world. There are currently 500+ subscribers. You will automatically receive in your email box all messages that are sent to the list. This is a great place to ask for technical assistance, opinions on curricula, and hear about successes and pitfalls related to DI.

To subscribe to the list, send the following message from your email account:

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In the message portion of the email simply type:

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You send your news and views out to the list subscribers, like this:

To: di@lists.uoregon.edu

Subject: *Whatever describes your topic.*

Message: *Whatever you want to say.*

The list is retro-moderated, which means that some messages may not be posted if they are inappropriate. For the most part inappropriate messages are ones that contain offensive language or are off-topic solicitations.

19 Remedies for Problems with Mastery

Start of the year (or when a new student joins the class)

1. Teach for a couple of weeks before making decisions.
2. Provide guided practice until review consists of recently taught items.

Lack of mastery during the oral teacher-directed part of the lesson

3. During choral responding, distinguish “careless” errors from “real” mistakes.
4. Pre-correct.
5. Give extra “think time.”
6. Redo parts of a lesson with the whole group.
7. Provide extra help daily for a subset of a group.
8. Consider group changes within the grade level.
9. Pull out individual students for pre-teaching.
10. Pull out individual students to teach missing prerequisite skills.
11. Implement cross-grade placement changes.

Written work—working with the whole class

12. Review and preview before tests.
13. In written work, differentiate between “careless” errors and “real” ones.
14. Do remedies with individuals.
15. Identify only the specific objectives that need re-teaching.
16. Re-teach for five minutes, then present the day’s lessons.

Helping individuals or small groups of students who do not pass an objective

17. Provide instruction outside of class time.

18. Begin remediation by trying some prompted assessment.
19. Re-teach with a review session, guided practice, and independent practice.

19 Remedies Explained

Start of the year (or when a new student joins the class)

1. Teach for a couple of weeks before making decisions. At the start of the year it will be evident that students have forgotten a lot of material over the summer. Teach for a week or two with lots of review before deciding whether students know the material they were taught last year. Do not move an entire class back to redo more than three lessons they have previously been taught.
2. Provide guided practice until review consists of recently taught items. At the start of the

year if you are in the middle of a program, the students often have forgotten many of the review items, stories, and information. The same thing applies to a new student—who will not know the review items, stories, and information. Help them complete these items (through teacher-guided practice) until review begins to be about things they have learned recently. Do not take a class or a student back, because the same problem will occur with any lessons except the beginning of a level—there will be a number of review items that assume prior knowledge the students do not have.

Lack of mastery during the oral teacher-directed part of the lesson

3. During choral responding, distinguish “careless” errors from “real” mistakes. Real mistakes happen when students do not know the correct answer or are guessing

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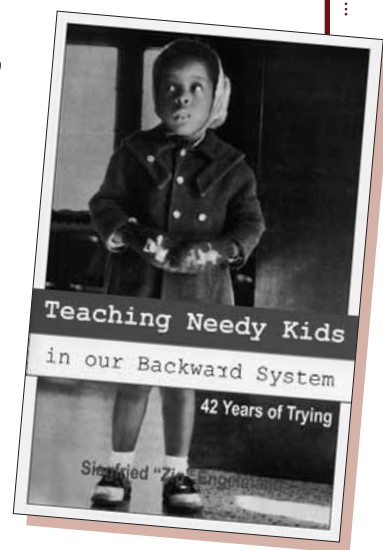
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The Association for Direct Instruction is proud to publish Siegfried “Zig” Engelmann’s newest book, *Teaching Needy Kids in Our Backward System*. This book chronicles Zig’s history in education. More than just a memoir, the book details how our educational system has failed to embrace solutions to problems the establishment claims it wants to solve. You will find this a fascinating read as well as shockingly revealing.

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between two alternatives. They need to redo those items until the confusion is eliminated. Careless errors happen when students are not looking at the book, not paying attention, have lost their place, are answering the previous item or the next item, etc. Careless errors can be fixed without further instruction. Your job as a teacher is to know if the students really don't know the material or just messed up. Individual turns are key to knowing the difference. If students can do the items correctly during an individual turn, you can be sure they know the material.

The point of error correction and part-firming is to re-teach something the students didn't understand or remember—not as a punishment for carelessness. While we recommend part-firming to handle all errors, even careless errors, teachers should conduct part-firming with a careless error

only if the part-firming serves to give the students a wake-up call that they need to pay better attention so as to respond correctly. If repeating parts over and over becomes the norm, you will have to find another way to motivate students to pay attention. If students are correct on individual turns, you will need to move on in the lesson, ignoring some “careless” errors during choral responding.

4. **Pre-correct.** As you preview a lesson you can see that some items are more difficult and are more likely to be answered incorrectly. The better you know your students, the more effective you will be at anticipating these likely errors. If you can fix the problem *after* giving the item, then you can prevent the problem *before* giving the item. Before asking the question, pre-correct for likely errors by prompting the students to be careful. “This might trick you,” you

can say. “Don't be fooled.” An ounce of prevention is worth a pound of cure!

5. **Give extra “think time.”** Many times student errors are a result of the teacher not giving students enough time to think. If students' error rates are higher than they should be during group work but at other times students are able to do the work, check to see if providing more think time will help. Often errors almost completely disappear when students are given more time to think before giving an answer.
6. **Redo parts of a lesson with the whole group.** Sometimes a group will have a lot of difficulty with parts of a particular lesson. If you cannot get the parts firmed, you may decide to redo the parts of the lesson that were more difficult for the students (later in the day or the next day). As an occasional response, this can be effective in



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building mastery. This should be an infrequent response, as it slows down lesson progress. Get help if this becomes routine.

7. Provide extra help daily for a subset of a group. On a daily basis, hold all students to the 100% part-firming paradigm. If anyone makes an error, correct the group, get confirmation they got it, then come back and do a delayed test. If a few students in a group require more work, give them an extra mini-lesson before or after working with the whole group. Often an extra five to ten minutes with a subset of the group can clear up problems and keep the group together and on pace.
8. Consider group changes within the grade level. If the in-class remedies are not sufficient, meet with the coach to decide if a placement change within the grade level is possible. Changing a student to a slower or lower group within the same grade-level material means he or she will routinely get more attention and practice because group size should be smaller. Try other remedies before moving students to a class or group that is a grade level lower.
9. Pull out individual students for pre-teaching. The best help for the oral part of a DI lesson is to have someone pre-teach the oral part of each lesson the day *before* the student gets that lesson in the group. In the small pre-teaching group, all confusions can be cleared up and the student can begin to master the material. The next day, the student will be successful, the group will run smoothly, and the learning will be cemented in.
10. Pull out individual students to teach missing prerequisite skills. Sometimes students have failed to master some prerequisite skills. New students are often placed in programs where they have not mastered all of the prerequisite skills,

such as blending, identifying subject and predicate, rounding, or morphographs. Depending upon the student's ability, he or she can pick up these skills as part of regular instruction. If that does not happen, the student will need to learn these specific skills during separate, small, needs-based groups, which is a preferable alternative to moving the student down a whole grade level in the program. Teachers should conduct these groups at a time other than during independent work, when teachers should be monitoring and providing feedback to students. If a student is missing *most* of the prerequisites for a level, then the pull-out efforts may not be suffi-

cient and the student will have to be placed in a lower level.

Teachers should teach missing prerequisites using the original script from the program. The teacher's guide is the best source for finding the beginning of a track that teaches a specific skill. Typically, just that track needs to be taught, which should only take a few minutes a day. Plan to teach the track over the same number of days that were used to present the skill initially. The student should be at mastery by the time the track assumes the class will be. Therefore, if a track on rounding begins on lesson 25 and is tested at lesson 40, the student should pass the

DI-ANNOUNCE Electronic List

An electronic list is now available: DI-ANNOUNCE. As its name indicates, DI-ANNOUNCE is an electronic list for announcements on resources for those studying or implementing Direct Instruction. List topics include the following:

- research articles, news articles, and other publications on DI;
- updates on DI implementations;
- meetings, conferences, and workshops on DI;
- authors' remedies for specific exercises in the DI programs that have been identified as being difficult for children;
- new DI products and resources;
- grant opportunities or awards for DI research or implementation;
- job opportunities for DI researchers or practitioners;
- sources of data on student performance for analysis or distribution.

Note that DI-ANNOUNCE postings are limited to ANNOUNCEMENTS. The list is NOT a discussion list, and it is moderated. Any replies, jokes, or other off-task messages will be rejected. There is an on-line, web-based archive of postings for later reference and retrieval. In this way, the list is designed to be a streamlined tool for communicating information on the most critical developments in the field of Direct Instruction.

To subscribe, send a message to join-DI-ANNOUNCE@lyris.nifdi.org.

You will then receive a "welcome" message with additional information about the list. You can also go to <http://lyris.nifdi.org/> to see an archive of past announcements sent to the list, including the "welcome" message.

The list launched last October. You are invited to join the list and send announcements as appropriate. Feel free to call Kurt Engelmann at the National Institute for Direct Instruction (NIFDI) via 877.485.1973 toll-free or email kurt@nifdi.org if you have any questions about the list.

test after 15 short lessons of instruction.

11. Implement cross-grade placement changes. If a student or two in a group are receiving more pull-out instruction and practice but are still slowing the group down and remain unable to respond correctly, consider a placement change into a lower grade. Get the coach's help for this decision, and involve the parents.

Written work—working with the whole class

12. Review and preview before tests. Before giving tests or handing out independent work, look at the materials for items on which students are likely to make errors, or items where the format is different from how it was practiced previously or during the teacher-directed part of the lesson. If you have been carefully looking at your students' written work, you will be able to anticipate the likely errors. As is true in the teacher-directed oral parts of lessons, if you can fix the problem *after* the test, then you can prevent the problem *before* the test. Before handing out the test or assigning students the independent work, pre-correct for likely errors by going over similar items with the class. "Here's an item that some of you have found difficult. Don't let this trick you." As noted before, a few seconds spent preventing a problem can save a lot of time correcting the errors afterward.
13. In written work, differentiate between "careless" errors and "real" ones. Once again, real mistakes happen when students do not know how to do something correctly and need further instruction. But students can fix minor, careless mistakes without any additional instruction from you—just pointing them out is sufficient. Examine tests or independent work for evidence of careless mistakes that do not indi-

cate a need for re-teaching but instead indicate a need for motivation to do better. These include spelling errors, fact errors, punctuation errors, and the like. You may mark off points for these errors, but they don't indicate a lack of mastery. Do not re-teach when these kinds of errors are the main problem. Just focus on increasing motivation to do the work perfectly as you continue moving through lessons. If you can't get the class to nearly error-free performance, get some help to work on motivation but don't redo entire lessons or entire tests for these kinds of errors.

14. Do remedies with individuals. If less than 25% of a class does not meet passing criteria, do remedies with individuals instead of the whole class. Read more on that below.
15. Identify only the specific objectives that need re-teaching. Analyze the test results to see

which objectives caused the most trouble for students. Any objective where more than 25% of the class made "real" mistakes requires some additional re-teaching. Generally, some objectives have more careless errors and therefore don't need re-teaching. If you have been teaching to mastery, part firming, and using individual turns with your low performers, you should not see students making many real mistakes on very many objectives. In other words, if the students didn't learn, then somehow you failed to teach effectively.

16. Re-teach for five minutes, then present the day's lessons. Do not stop presenting new lessons. Instead, take no more than five minutes before you present each day's lesson to review and practice one or two objectives that students had real problems with. Do two or three examples for each objective together with students, then have them do one on their

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Rubric for Identifying Authentic Direct Instruction Programs

Siegfried Engelmann & Geoff Colvin

The purpose of this document is to articulate and illustrate most of the major principles or axioms that are followed in the development of Direct Instruction programs. This information permits a critic to look at material and judge whether it is true Direct Instruction or some form of imitation that does not adhere to the full set of axioms that characterize true DI. It shows the level of detail associated with what students are told, how they are tested, what kind of practice is provided, and how the material is reviewed and expanded from one lesson to the next.

Direct Instruction programs have an impressive track record for producing significant gains in student achievement for all children. This book provides the reader with an understanding of the critical details involved in developing these effective and efficient programs. — Doug Carine, Ph.D., Professor, University of Oregon



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own. Do this five-minute review for two or three days until you feel they “get it.” Then test your assumption the next day by giving them a mini-test of a couple of items “cold” at the start of the lesson. When 75% to 80% of students get the items right on this mini-test, then you have fixed the problem on this objective for the class as a whole. Keep going until you have addressed all the objectives on which more than 25% of the class made real mistakes. See below for any students who still do not get it.

Helping individuals or small groups of students who do not pass an objective

17. Provide instruction outside of class time. Some students will still

make real errors after the group re-teaching. Some students will also make real errors when more than three-fourths of the class does fine on an objective. These students need one-on-one instruction. This cannot occur during regular class sessions because the teacher needs to be monitoring and motivating the whole class at that time. Find another time and/or another person to provide this one-on-one instruction. Be very clear about what objectives and types of items need to be learned.

18. Begin remediation by trying some prompted assessment. Whether with an individual or small group, remind students of how to do these items to see if simple prompting can elicit the

prior learning. If it does, then the next day give students a mini-test “cold” without any review. If they get the answers right, your job is done for that objective.

19. Re-teach with a review session, guided practice, and independent practice. Do this when prompted assessment isn’t sufficient. You will need to spend just a very few minutes for each objective. Remember, a student only needs two to five problems on any day, but work on gradually increasing the amount of independent work until the student doesn’t need instruction anymore. The next day, give a mini-test “cold” without any review. If the student gets the answers right, your job is done for that objective. *ADI*

Chapter 5: Follow Through Evaluation

Prologue

[Editors' note: This prologue accompanies Chapter 5, "Follow Through Evaluation," on Zig's website, www.zigsite.com.]

I put Chapter 5 of *Teaching Needy Kids in Our Backward System* online for two reasons:

1. It provides indisputable evidence that DI outperformed all other 21 models of instructing at-risk children in Project Follow Through.
2. It might spark some interest in DI outside the DI community by suggesting that we know something about teaching kids effectively and that we don't destroy kids or their teachers.

A synopsis of the Follow Through evaluation is that the Feds recognized DI as the winning model but

didn't disseminate information about DI because it was the only winning model. So even though DI showed that it could greatly accelerate the performance of at-risk students, and even though the evaluation cost \$30 million, the Feds lied about Follow Through and simply asserted that Follow Through failed (which implies that all the models failed).

Millions of needy kids have been robbed of career ladders by the Feds' decisions. Millions of teachers have been professionally insulted because information about DI practices never reached them or the unfortunate educators who trained them.

But it happened, and this chapter presents letters from the people who made the decisions, showing that they not only understood that DI was the undisputed winner in

reading, math, language, spelling, self-images, and measures of self-reliance, but used these facts as their justification for not acknowledging DI. Sound insane? Read the chapter.

DI, Undisputed Winner

The formal evaluation of Follow Through sponsors and Follow Through's overall performance came out in April of 1977. At that time scientists had recently discovered the cause of Legionnaire's disease; Jimmy Carter had become president and had pardoned Vietnam War draft evaders. The worst air collision to that time had occurred when two planes collided over the Canary Islands killing 583 people.

The Follow Through evaluation did not make headlines because it had not

Reprinted with permission of Zig Engelmann. From Engelmann, S. (2007). *Teaching Needy Kids in Our Backward System: 42 Years of Trying*. Eugene, OR: ADI Press. The chapter also appears on Engelmann's website, www.zigsite.com.

been officially announced or interpreted by the Office of Education. The design of the evaluation was careful. To assure that the analysis was experimentally pristine, two organizations dealt with data. Stanford Research Institute collected the data; Abt Associates, on the other side of the continent, analyzed it. The evaluation cost \$30 million.

At the time of the evaluation, Bob Egbert was no longer the national director of Follow Through. He had been succeeded by Rosemary Wilson, who shared neither his vision nor his conception that if Follow Through permitted sponsors to implement in a conducive context, the evaluation would clearly identify winners and losers.

The analysis centered around the third-grade performance of the later cohorts that went through the various Follow Through programs. 40,000 third-graders were tested. Part of the evaluation did not involve all of our sites, only most of the sites that started in kindergarten. Grand Rapids was one of the sites included in this part of the evaluation, although we had not worked with the site for three years and had received no money from national Follow Through for sponsoring the site. Yet, the analysis treated Grand Rapids as if it were one of our sites. Even so, we were confident that the data would show that we had won the horse race.

This confidence was in defiance of the educational community's consensus that there would be no clear winners or losers. Although sponsors were not permitted to publish data that could be construed as comparing performance of different models, National Follow Through analyzed the data and reported comparative data to sponsors as early as 1973, when a conference in Brookings, OR, presented results from 1971. The book *Planned Variation in Education—Should We Give Up or Try Harder?* drew the conclusion, "It already seems highly doubtful, however, that the results will provide clear-cut indications that one model is best."

This conclusion was based on the 1970–71 cohort, but there was data on the 1971–72 cohort, which generated a far different picture. Kansas and our model were far ahead of the others. Also, the director of Follow Through research, Gary McDaniels, wrote, "Several sponsors looked very strong after the first year, while others did not. The strongest were those that emphasized short-term achievement effects [in other words, Kansas and us]."

During the period before the Abt Report came out, I was not concerned with what the analysts said about the data. I didn't have either time or interest to debate whether the fat lady was singing yet.

The first published reports on the Follow Through performance were based on an analysis of sponsors conducted by Stallings and Kaskowitz, which appeared in *Behavior Today* in 1975. After making extensive observations of the various sponsors' classrooms, Stallings concluded that there were different winners that corresponded to different program emphases. According to Stallings's calculations, those approaches that focused on reading and spent more time on reading had better reading performance (DI and Behavior Analysis). The main problem with this conclusion was that we did not spend more time teaching reading than most of the models. In fact, we probably spent less than half the time provided by the Bank Street model and several others.

Stallings also concluded that different programs were creating children who were different in problem solving, responsibility, question asking, and cooperation. She concluded that children in High Scope and Open Educa-

tion were high in these traits. She wrote: "Cooperation was marked in classrooms where a wide variety of activities occurred throughout the day and where children would explore and choose their groups." The problem was that she defined cooperation in terms of the activities. If children spent more time in activities that apparently involved cooperation, Stallings concluded that they were "more cooperative."

She also defined responsibility in terms of activities—a child or group engaged in any task without an adult. The definition has nothing to do with the amount of responsibility children learn. (Of course she assumed that if children spend time unsupervised, they must be learning more about responsibility.) If institutionalized children had been included in the evaluation, they probably would have had "responsibility" scores even higher than Open Education or High Scope because they often have no supervision.

During the period before the Abt Report came out, I was not concerned with what the analysts said about the data. I didn't have either time or interest to debate whether the fat lady was singing yet.

The fourth volume of the Abt Report presented data on Follow Through sponsors. It came out in 1977 and left no doubt about whether the fat lady had sung. The volume provided arias involving winners and losers, based on performance data. The report confirmed what we knew all along. No other model was close to ours in sophistication.

The achievement-test data and that of other tests were analyzed two ways, "adjusted" and "unadjusted." The adjusted data were expressed as positive or negative outcomes. If a particular site had a score that was a standard number of points higher than the other sites, the site received a plus (+). If the site had a score that was a standard number of points lower than

the other sites, the site received a minus (–). If the site was somewhere between a + and –, the difference was considered educationally insignificant.

For analyzing performance of sponsors, Abt threw out performance comparisons if the Follow Through site and the comparison groups differed by more than 50 percent on their entry scores. Several comparisons involving East St. Louis were thrown out, which was unfortunate because East St. Louis children were initially more than 50 percent lower than the children in the comparison groups but still outperformed them by enough to earn a +.

There were other ways the analysis was bent to be unkind to DI, including the way some of the data were “interpreted.” Even so, the numbers didn’t lie.

The evaluation had three categories: basic skills, cognitive (higher-order thinking) skills, and affective responses. Figure 1 shows the outcomes for the nine major sponsors.

The basic skills consisted of those things that could be taught by rote—spelling, word identification, math facts and computation, punctuation, capitalization, and word usage. DI was first of all sponsors in basic skills. Our average score was +297 (which means that we had a considerably larger number of significantly positive outcomes than the Title I comparison students). Only two other sponsors had a positive average. The remaining models scored deep in the negative numbers, which means they were soundly outperformed by children of the same demographic strata who did not go through Follow Through. The sites that Stallings glorified did poorly in this category. High Scope was –389 and Open Education was –433 (far fewer significantly negative outcomes than the Title I comparisons recorded). According to the Stallings predictions, this outcome might be expected for basic skills.

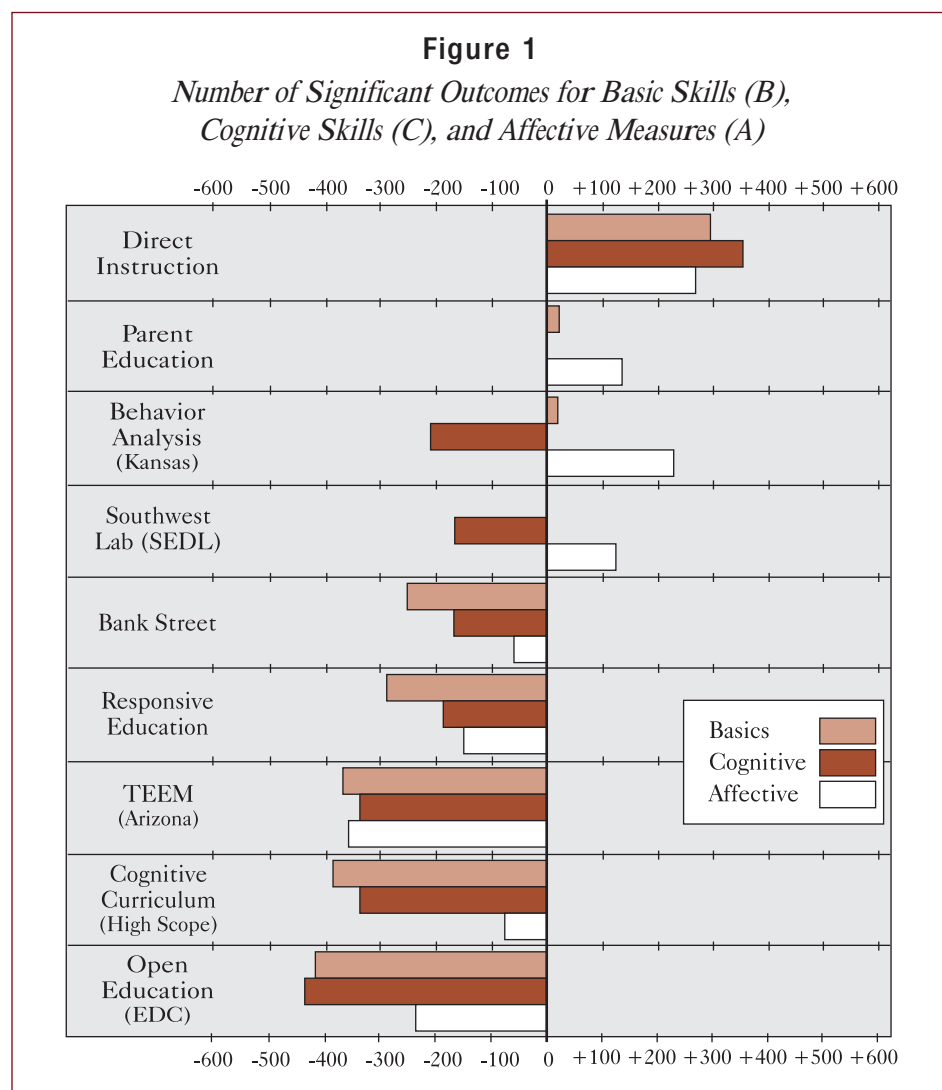
DI was not expected to outperform the other models on “cognitive” skills, which require higher-order thinking, or on measures of “responsibility.” Cognitive skills were assumed to be those that could not be presented as rote, but required some form of process or “scaffolding” of one skill on another to draw a conclusion or figure out the answer. In reading, children were tested on main ideas, word meaning based on context, and inferences. Math problem-solving and math concepts evaluated children’s higher-order skills in math.

Not only was the DI model number one on these cognitive skills; it was the only model that had positive scores for all three higher-order categories: reading, math concepts, and math problem-solving. DI had a higher

average score on the cognitive skills (+354) than it did for the basic skills (+297). No other model had an average score in the positive numbers for cognitive skills. Cognitive Curriculum (High Scope) and Open Education performed in the negative numbers, at –333 and –450.

On the affective measures, which included a battery of tests that evaluated children’s sense of responsibility and self-esteem, our model was first, followed by Kansas. The models that stressed affective development performed even below the Title I average.

One of the affective tests described positive achievement experiences and negative experiences. DI children saw themselves as being more responsible for outcomes than children in any other model. On the test that assessed



children's feelings about how they think other people view them and how they feel about school, DI children had the highest scores.

Note that DI was over 250 points above the Title I norm and Open Education was over 200 points below the norm. The Abt Report observed that the high performance of children in our model was unexpected because we did not describe affective outcomes as an objective. The reason was that we assume that children are fundamentally logical. If we do our job of providing them with experiences that show they are smart, they will conclude that they are smart. If they experience success in school that can also be measured in the neighborhood, those experiences serve as fuel for the conclusion that students are competent. At the time of the evaluation, I had heard more than 100 stories of our children helping older siblings learn to read or do homework. The children knew that they could do things the average kid on the street could not do.

The rest of the Abt results were expressed as percentiles. The performance of an average student taking an achievement test is the 50th percentile. The goal for Follow Through had been to achieve the 50th percentile with at-risk children. The average percentile for Title I students was the 20th percentile—less than half that of the average student. The 20th percentile was used as a measure of whether a model produced a positive or negative effect. The farther above the 20th percentile a model is, the better it performs.

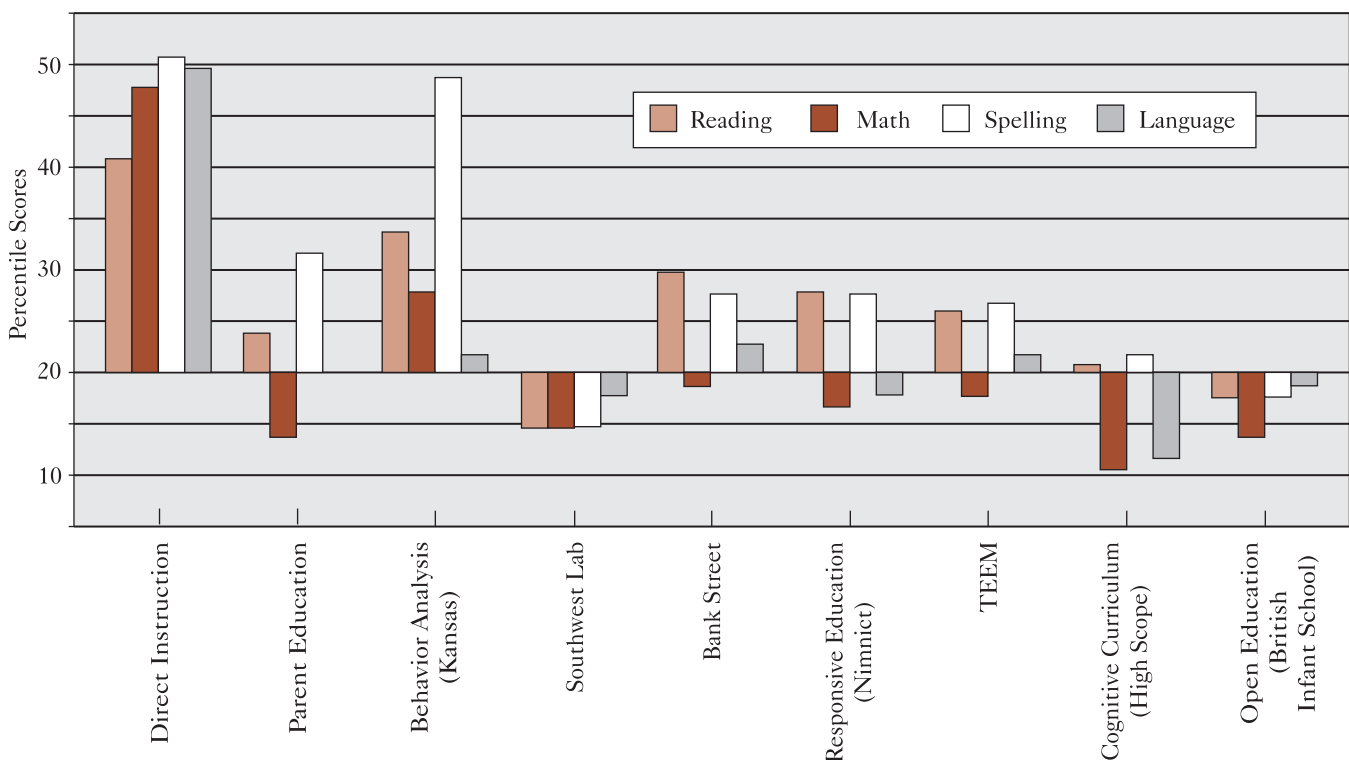
Figure 2 shows the performance of the nine major sponsors in total reading, total math, spelling, and language.

The horizontal line indicates the 20th percentile. As the figure shows, the competition is closest for reading. All but three of the sponsors scored at or above the 20th percentile. For math, only two models were above the 20th percentile, ours and Kansas (Behavioral Analysis). For language, our model was

the only one above the 23rd percentile. High Scope (Cognitive Curriculum) had the lowest scores of all sponsors in math and language. Obviously, this data makes a mockery out of Stallings's notion that an untrained observer could make a few observations of classrooms, classify the activities, and draw any kind of valid conclusion about how successful each program was in inducing cognitive skills.

There's more: Not only were we first in adjusted scores and first in percentile scores for basic skills, cognitive skills, and perceptions children had of themselves, we were first in spelling, first with sites that had a Headstart preschool, first in sites that started in K, and first in sites that started in grade 1. Our third-graders who went through only three years (grades 1–3) were, on average, over a year ahead of children in other models who went through four years—grades K–3. We were first with Native Americans, first with non-English speakers, first in rural areas, first in urban areas, first

Figure 2
Percentile Comparisons for the 9 Major Follow Through Sponsors



with Whites, first with Blacks, first with the lowest disadvantaged children, and first with high performers.

From a historical perspective the performance of our children set important precedents.

1. For the first time in the history of compensatory education, DI showed that long-range, stable, replicable, and highly positive results were possible with at-risk children of different types and in different settings. Previously, “the exemplary program” was a phantom, something that was observed now but not a year from now. Most were a function of fortuitous happenings, a measurement artifact, or a hoax.

2. DI showed that relatively strong performance outcomes are achievable in all subject areas (not just reading) if the program is designed to effectively address the content issues of these areas. Also, this instruction created lively, smart children who had confidence in their abilities.

3. The performance of all the Follow Through children (but particularly DI children) clearly debunked all the myths about DI. DI did not turn children off or turn them into robots. DI children were smart and they knew it.

4. DI outcomes also debunked the myth that different programs are appropriate for children with different learning styles. The DI results were achieved with the same programs for all children, not one approach for higher performers and another for lower performers, or one for non-English speakers and another for English speakers. The programs were designed for any child who had the skills needed to perform at the beginning of a particular program. If the child is able to master the first lesson, she has the skills needed to master the next lesson and all subsequent lessons. The only variable is the rate at which children proceed

through the lessons. That rate is based solely on the performance of the children. If it takes more repetition to achieve mastery, we provide more repetition, without prejudice.

5. The enormous discrepancies in performance between our model and all the others implies that we knew something they didn't know about instructing the full range of children in the full range of academic skills. We did not buy into the current labels, explanations, or assumptions

For the first time in the history of compensatory education, DI showed that long-range, stable, replicable, and highly positive results were possible with at-risk children of different types and in different settings.

about learning and performance. The results suggest that our interpretation was right, and that the philosophies of the cognitive and affective models did not translate into effective instruction.

6. The performance of the sponsors clearly debunked the notion that greater funding would produce positive results. All sponsors had the same amount of funding, which was more than a Title I program received. DI performed well in this context; however, the same level of funding did not result in significant improvement for the other models. For all programs there were comprehensive services, which included breakfast, lunch, medical and dental care, and social services. In this context, the only reasonable cause for the failure of other models was that they used inferior programs and techniques.

7. The Direct Instruction model was the only one that was effective with extremely low performers. We showed that these children could uniformly be taught to read by the end of kindergarten and read pretty well by the end of first grade. Performance of this magnitude and consistency had never been demonstrated in the schools before Follow Through.

8. The relative uniformity of the DI sites implies that DI was better able to make the typical failed teacher successful. Teachers who had not been able to teach children to higher levels of performance were able to do it with our program.

9. Probably most important, the outcome showed that our focus on the moment-to-moment interactions between teachers and children was correct. Most of the other models viewed the problems of instruction in terms of broad interactions between teachers and children, not in terms of specific information delivered in moment-to-moment interactions.

We were not into celebrating, but after work on the day Volume 4 arrived, we had a little party, a couple of beers, and several rounds of congratulations to trainers, managers, and consultants who worked in the trenches to achieve this outcome. We reminded us that the game plan was for the winners to be widely disseminated. So we needed to think about tooling up to work with a far greater number of places. We needed to convert some of our trainers to project managers, recruit some of the superteachers from our Follow Through sites, and get ready to work with lots of Title I programs. Several of our project managers were skeptical about this degree of acceptance, but the rest of us felt that there would be a payoff for the last nine years of work.

Reconstructing History and Logic

With the Abt data published, the moratorium on comparative studies was lifted. Wes promptly prepared a long article for the *Harvard Educational Review*, “Teaching Reading and Language to the Disadvantaged—What We Have Learned From Research,” which came out in 1977 and gave overviews of our approach and programs, our training, and our results.

Wes anticipated that the article would stimulate great interest. Instead, there was almost no response—no revelations reported by readers who realized that the practices they espoused had led to unnecessary failure or revelations that DI presented a better way to solve problems that had been haunting school districts since the Coleman Report. There were no frantic phone calls from people wanting to learn more about DI, nor calls from reporters asking about the astonishing results. Instead there was a handful of responses, and most were not positive but raised carping issues about the design of the study or the problems associated with accurately measuring cognitive outcomes. Those who carped had earlier accepted the idea that achievement tests documented the performance problems of at-risk students. Yet, when the same kind of achievement-test data showed that their favored programs produced children who failed as miserably as children summarized by the Coleman Report, they rejected the study.

The Glass House

We later discovered that the effort to trivialize Follow Through data had begun before Abt 4 had been released. The effort was initiated by the Ford Foundation, which had been supporting failed educational programs. In January 1977, the Ford Foundation awarded a grant to the Center for Instructional Research and Curriculum Evaluation at the University of Illinois to conduct a third-party evaluation of Follow Through results. Ernest House

was project director. He assembled a panel of professionals with national reputations in their fields—Gene V. Glass of the University of Colorado, Leslie D. McLean of the Ontario Institute for Studies in Education, and Decker F. Walker of Stanford University. This assemblage judged Follow Through data.

We later discovered that the effort to trivialize Follow Through data had begun before Abt 4 had been released. The effort was initiated by the Ford Foundation, which had been supporting failed educational programs.

The main purpose of the critique was to prevent the Follow Through evaluation results from influencing education policy. The panel’s report asserted that it was inappropriate to ask, “Which model works best?” Rather it should consider such other questions as “What makes the models work?” or “How can one make the models work better?”

Glass wrote another report for the National Institute of Education (NIE), which argued that it was not sound policy for NIE to disseminate the results of the FT evaluations, even though the data collection and analysis had cost over \$30 million. Here’s that part of the abstract of Glass’s report to the NIE:

Two questions are addressed in this document: What is worth knowing about Project FT? And, How should the National Institute of Education (NIE) evaluate the FT program? Discussion of the first question focuses on findings of past FT evaluations, problems associated with the use of experimental design and sta-

tistics, and prospects for discovering new knowledge about the program. With respect to the second question, it is suggested that NIE should conduct evaluation emphasizing an ethnographic, principally descriptive, case-study approach to enable informed choice by those involved in the program.

Again, this position is curious for one who apparently believed that data of the same type collected in the FT evaluation earlier documented the problem. Why would the data be adequate to document the problem but not appropriate for documenting outcomes of different approaches that address the problem?

The suggestion that case studies would enable informed choice is not very thoughtful. Qualitative studies work only if they are carefully underpinned with rules about quantities. I’m sure that if the game was for each sponsor to compile descriptions from their high-performing classrooms, DI would have a larger number of success stories than the other sponsors.

Unless there are some number assumptions—like, “How consistently do positive case histories occur?”—the data is useless. Making it even more useless is the depth of description that would be needed to enable an “informed choice.” I would guess that each study would require many pages. It would be far more confusing to try to extract information about what works best from these documents than from a few tables that summarize the performance data. In fact, the suggestion for using ethnographic studies was probably intended to make it impossible for readers to find out what worked best. Who would want to wade through possibly thousands of pages of “case histories” to distill a conclusion about which model was more effective?

Glass even argued that all evaluations involving measurable events and data are invalid. “The deficiencies of quan-

tative, experimental evaluation approaches are so thorough and irreparable as to disqualify their use.” What is surprising about this statement is how anybody at NIE could have read it and not concluded that the author was loony. The Follow Through experiment was a teaching experiment involving not a few minutes in the lab, but nine years of cohorts in which students passed through four grades in actual classrooms. This study had huge numbers. Also, the evaluation tools that documented performance of students already included ethnographic descriptions of models (prepared by Nero and Associates).

Another argument that Glass presented involved the “audience.”

The audience for Follow Through evaluations is an audience of teachers to whom appeals to the need for accountability for public funds or the rationality of science are largely irrelevant.

There are two major problems with this assertion:

1. The Follow Through study was not designed for teachers but for decision makers—school districts, state and federal departments of education—who serve as gatekeepers for what teachers do. The Coleman Report did not result in individual teachers organizing carpools to schlep children from the inner-city to the suburbs. The Follow Through study was not founded on the assumption that teachers enjoyed some kind of democratic world in which every teacher was able to make independent decisions about what and how to teach. Teachers are not decision makers on policy. Policy makers and district officials are. They would be far better informed by the Follow Through results than by any other single data source because only Follow Through provided extensive comparative data of different approaches.

2. Glass could not have seriously believed that even district-level decision makers would read Abt 4. They wouldn’t. Glass appealed to NIE because he was concerned about what NIE would say about Follow Through. The final NIE word would make a lot of news and create great interest. In effect, what NIE would say about the program would become the truth about it. People, press, and historians would be greatly influenced by NIE’s stance.

With a statement that downplayed the Follow Through data, Open Education and High Scope, Bank Street College, and Nimnict’s program would not be cast as losers, because ethnographic studies might feature one of their “good” sites.

Also, if NIE followed Glass’s recommendations, there would be no challenge to the current order of things in education. The Ford Foundation would save face and wouldn’t be labeled as a corporate fool for funding foolish programs for years. People in teacher colleges and district administrators would be able to keep their prejudices about children, learning, and teachers. The publishers of elementary-grade instructional material would be happy because no tidal wave would sink sales of instructional material, and school districts would not have to face uncomfortable issues of overhauling both their belief systems and their machinery. College professors could continue to espouse developmental theories and discovery practices as they decry programs that would “divest teachers of their individuality and creativity.”

With a statement that downplayed the Follow Through data, Open Education

and High Scope, Bank Street College, and Nimnict’s program would not be cast as losers, because ethnographic studies might feature one of their “good” sites. All the primitive but well-greased machinery on all levels from state departments of education to classrooms would remain solidly in place, with no challenge. Of course, somewhere in this political milieu were millions of kids whose lives would be greatly influenced by NIE’s decision. But as the anti-number philosophy suggests, who was counting?

In 1978, House and Glass published an article in the *Harvard Educational Review*, “No simple answer: A critique of the Follow-Through evaluation.” Unlike Wes’s earlier article, this one created quite a stir. A shortened version appeared in *Educational Leadership* in 1978.

Although Gene Glass had been president of the American Educational Research Association, the flaws in the arguments the article presented were so conspicuous that they should have been obvious to the man on the street. The article presented two main arguments to discredit the Office of Education evaluation. The main argument was based on a simple value judgment: sponsors should not be compared. Therefore, the Abt focus on the performance of individual sponsors was inappropriate.

House and Glass contended that the evaluation was actually designed to show how *the aggregate of models* performed, not what individual sponsors achieved. The aggregate failed; therefore, the most definitive statement about Follow Through would simply be Project Follow Through failed. In other words, the average of Follow Through students was no higher than those of comparable Title I students. Therefore, Follow Through failed, which means that every sponsor failed. The question of whether individual sponsors actually failed was not considered relevant because it’s bad form to compare sponsors.

What seems most curious about this argument is how House and Glass could conclude that Follow Through as a whole failed. That judgment involves a comparison of programs, Follow Through and Title I. Why is it that sponsors can't be compared but larger programs like Follow Through can?

Even more puzzling was how House and Glass could make the obvious distortion that Follow Through was never intended to evaluate the performance of different sponsors. Certainly, this assertion would be contradicted by Follow Through, unless there was collusion between several agencies, including the Office of Education.

The second House-Glass argument was that no approach was successful with all its sites. House and Glass pointed out that there was variability among each sponsor's sites, some performing well and others poorly. Therefore, no single sponsor should be identified as being "successful."

Again, if House and Glass argued that data could not be used to compare sponsors, by what ground rules were they able to compare sponsors with respect to their variability? Logically, Glass and House would have to throw out this argument or reveal themselves as cherry pickers who used comparative data when they needed it and rejected it when it worked against them.

The variability argument was particularly incredible because it was presented by professionals who were supposed to be experts in experimental designs. The most elementary fact about populations is that every observable population of anything has variation. In fact, populations vary across every measurable feature—the size of the lobes on black oak leaves, the shape of snowflakes, the age of computers. So it would be insane to throw out data simply because it shows that there is variability, particularly in this case because only one DI site varied greatly from the seventeen others and

only that site performed poorly. Grand Rapids had third-graders performing a year lower than third-graders in our other sites. The only possible evidence that House and Glass had about the "failure of DI" or the variability was based on one site that openly rejected the model's provisions and

The official statement that NIE issued was consistent with the recommendations by Glass and House: Project Follow Through did not significantly improve the performance of disadvantaged students over students in extant Title I programs. There was not a word about winners, losers, or about the performance of individual sponsors, just a flat statement that Project Follow Through—an aggregate—failed.

had no contact with the sponsor in more than three years. Furthermore, all the higher-echelon bureaucrats in Follow Through and in NIE knew that we hadn't worked with Grand Rapids for years.

Sad Song of the Real Fat Lady

The official statement that NIE issued was consistent with the recommendations by Glass and House: Project Follow Through did not significantly improve the performance of disadvantaged students over students in extant Title I programs. There was not a word about winners, losers, or about the performance of individual sponsors, just a flat statement that Project Follow Through—an aggregate—failed.

Functionally, this decision showed the priorities of the educational system. It was more palatable for educators to accept that their favored approach failed than it was to admit that an approach in disfavor succeeded. The educators' feelings and prejudices were functionally more important to them than evidence that there was a successful method for teaching at-risk children. Stated differently, these people showed that their beliefs were more important than the millions of failed children who could benefit from effective instruction. Make no mistake, they would not have gone through the various machinations they created if they believed their own rhetoric about how important it is to serve at-risk children.

In the end, sites from all the Follow Through models including High Scope and the Open Classroom were "validated." So the status quo was maintained; the models that had horrible results would remain in good standing; all educational myths were perpetuated. If policy makers wanted to believe in instructional models based on student choice, extensive parent involvement, or discovery learning, they wouldn't have to face the pesky problem of how to support this notion with data. Their collective conscience was clear because all these approaches had been "validated." Someone receiving this information would assume that validated means that the validated approach was replicable and sound.

Paper Trail

The master plan for Follow Through and how information about Follow Through would be disseminated to other schools and agencies was complicated.

The switch of emphasis from sponsors to individual school programs had begun as soon as Abt 4 came out in 1977. The Office of Education established the Joint Dissemination and Review Committee. Its purpose was to screen Follow Through schools that applied for funds to disseminate infor-

mation about the school's successful program. The review committee scrutinized schools that applied through forms, letters, and interviews. Those schools that made it over these hurdles were "validated." Whether they were High Scope schools, Open Education schools, or DI sites. All received the same size validation.

Not all of our sites that applied for funds made the cut. At least four of them received a rating of B and at least two a rating of C, even though they had excellent performance data. It seemed obvious that there was a conscious effort to keep DI from having more representation than some of the other major models.

Once validated, a school would become a member of the National Diffusion Network (NDN), which consisted of 200 programs, each receiving funds to promote itself to other schools. Of the 200 dissemination schools, only 21 were Follow Through schools, and only 3 were Direct Instruction schools—Flint, Dayton, and East St. Louis. Most of the 200 schools came from a poor list of "effective programs" compiled by the Far West Regional Educational Lab. Very few of these schools actually had data of effectiveness, but neither did at least 14 of the 21 Follow Through sites that were now incorporated into the network.

The National Diffusion Network was possibly well named because it did a good job of diffusing, in the sense of making the effect thin. Instead of being 3 out of the 21 programs to be disseminated, DI was now 3 out of 200, less than 2 percent of the total. And as usual, all "validated sites" had the same status.

Individual schools were eligible to disseminate, but sponsors weren't. The Joint Dissemination and Review Committee ruled that only *schools* could apply for validation, not models.

When we received this news, I thought Wes would go into apoplexy. I had never seen him that angry. I was not a portrait

of happiness, but Wes exploded. He quickly recovered and in less than an hour was on the phone, trying to contact senators, representatives, and others who might have some influence.

In October of 1977, Wes and I wrote a letter to Rosemary Wilson protesting Follow Through's position about dissemination. We wrote again in November, after it became apparent that

The consistent performance of our model affirmed that our techniques and programs were replicable and that with proper training teachers in failed schools could succeed. Why wouldn't that information be important enough to disseminate? Why did the government feel that it had to initiate some form of affirmative action to keep failed models floating?

nothing would change. That letter appears in whole, followed by her response, in Figure 3. Our letter iterates some of the points I have covered.

Obviously, Rosemary Wilson lied, issuing the same fabrication that House and Glass asserted about Follow Through being designed to assess the aggregate performance of the models, not to compare individual sponsors. Equally obvious, Wilson was told by her superiors what lies she would present about the intent of the Follow Through evaluation. The only real question was how high in the bureaucracy the deception went.

The answer came in 1978, in the form of a letter from U.S. Commissioner of Education Ernest Boyer, to Senator

Bob Packwood from Oregon, one of the politicians Wes had contacted. This letter provides no doubt about Rosemary Wilson lying. It also delivers the twisted justification for rejecting the focus on sponsors. The letter leaves no doubt that the decision came from the top of the food chain, the Commissioner of Education. This letter is frank and honest, but contains desperately confused arguments.

Figure 4 shows the letter from Packwood to Wes and the accompanying letter from Boyer to Packwood.

The first sentence of point 1 in Boyer's letter contradicts the assertion by Wilson, House, and Glass about whether Follow Through was designed to find successful models or to evaluate the aggregate of models. "*Since the beginning of Follow Through in 1968, the central emphasis has been on models.*"

Boyer freely admits that policy makers accepted the data as valid. Several references in his letter indicate that he had no doubt that only one model was highly successful, which means that he was aware of facts that had never been shared with states and school districts.

The ultimate conclusion Boyer drew was that if there was only one successful model, it should be treated like all the other models. In response to the question about funding *selected* models, Boyer's logic seems to be that somehow such funding would be irresponsible because there were not selected models, *only one selected model*. So rather than fund that model, the Office of Education assumed it was equitable to treat all models the same and simply promote selected sites. Imagine spending half a billion dollars to draw this conclusion.

The effect Boyer presumed would happen is naïve: "*... we are funding 21 of the successful sites as demonstration sites this year so that other schools and educators will learn about, understand, and hopefully adopt the successful activities and procedures taking place in these effective sites.*"

Figure 3

Letters



UNIVERSITY OF OREGON

College of Education

Department of Special Education

FOLLOW THROUGH PROJECT—"So They Shall Not Fail"

Telephone (code 503) 686-3555

Eugene, Oregon 97403

November 16, 1977

Rosemary Wilson
Office of Education
Department of Health, Education
and Welfare
7th and D St. SW
Washington, D.C. 20202

Dear Ms. Wilson:

The critical Follow Through issue is a moral one. We have demonstrated the capacity to teach you and other educators about teaching "poor kids", turning them on, and assuring that they catch up to their middle-class peers in academic skills. Our Follow Through achievements, however, don't show what we are actually capable of doing, because we do not have fully-implemented sites - only moderately implemented sites. The Follow Through guidelines have never permitted the kind of total system support needed to provide a full-fledged demonstration of what poor kids can achieve in grades K-3 if they receive a fully implemented, uniform, Direct Instruction approach (with trained teachers, supervisors, and directors).

The moral issue centers on this question: What does Follow Through stand for? Is it simply an experiment on human beings which has no concern for what the experiment might reveal for the millions of other "poor kids" who have serious educational needs? Is your office even remotely justified in treating all sponsors as equals and shifting (in the past two years) the emphasis from sponsors to individual sites? Or is this move designed to detract from the issues of effective approaches and make it seem that "every approach is capable or producing good results"? We would not have engaged in Follow Through for the past ten years if we had thought that there would be no attempt to weed out the inadequate model approaches, to educate both the public and the educational community about how to be effective, and to disseminate information on how to be an effective model? Furthermore, we would not have perpetuated our model if it proved to be a hoax; rather, we would have quit Follow Through with abject apology if the results had shown that our approach did not work any better than that of the typical Title I program and produced kids who performed only at the 18th percentile in reading and arithmetic by the end of the third grade.

According to your letter of October 28, 1977, "No single instructional approach, including that of Direct Instruction, was found to be consistently effective in all of the projects where it was tried and evaluated. Therefore, no overall claim of its effectiveness can be supported."

Figure 3, continued

Letters

Rosemary Wilson
November 16, 1977
page 2

This statement flies in the face of the USOE's own Evaluation Synthesis (John Evans' office) indicating that there is one model generally effective in basic skills, cognitive skills, and on affective measures - Direct Instruction. Your statement also flies in the face of the Abt Report data - not merely in the face of data showing the relative superiority of Direct Instruction over comparison groups, but also in the face of absolute grade norm data that shows Direct Instruction to be the only approach to bring third graders at or near grade level in reading, arithmetic, spelling, and language.

Your conclusion that no single instructional approach was found to be consistently effective is spurious because: (1) Grand Rapids is included as a Direct Instruction site (for two data points); and (2) the conclusion confounds program effect variability with control group variability. Variability in program implementation must take into account absolute grade-level performance. Grade-level performance is clearly as relevant as statistical significance because if all kids were performing at grade level (on the average), there would have been no need for Follow Through. In fact, much of the rhetoric that led to Follow Through by Robert Kennedy, Commissioner Howe, Bob Egbert and Jack Hughes, focused on the fact that poor kids perform well below grade level and are therefore preempted from "higher education" and its concomitants.

The so-called "variability" among the Direct Instruction sites is accounted for first by the unwarranted inclusion of Grand Rapids as a Direct Instruction site for two cohorts. Grand Rapids is not a Direct Instruction site. It is a Lola Davis site. You know that for most of 1972 and 1973, we did not function as a sponsor for Grand Rapids, that we did not receive funds for servicing Grand Rapids after the spring of 1973 when relationships with Grand Rapids were severed. You also know that Grand Rapids was not functioning as an implemented Direct Instruction site before the 1972-73 school year. It was not implemented - not because of our lack of effort - but because the director had different ideas about what and how to teach. You were involved in this situation and know quite well our position and the history. Grand Rapids is the only Direct Instruction K-starting site that performs relatively low in absolute performance. In fact, Grand Rapids performs an average of 1/2 standard deviation below the mean of other Direct Instruction K-starting sites. Examine the following summary tables that are based on data from Abt 3 and Abt 4, which show medium grade norms for Direct Instruction sites.

<u>Total</u> <u>Reading</u>	<u>Total</u> <u>Math</u>	<u>Spelling</u>	<u>Language</u>
3.7	4.2	4.3	4.8
Norm(3.5)→3.5	4.0	4.3	4.8
3.4	4.0	3.9	4.7
3.4	3.9	3.9	4.6
3.3	3.9	3.7	4.5
3.2	3.8	Norm → 3.6	4.2
3.1	3.8	3.4	4.1
3.1	Norm → 3.75	3.4	Norm → 4.0
(2.8)	3.7	3.4	(2.8)
(2.8)	(3.0)	(3.0)	(2.6)
	(2.8)	(3.0)	

Figure 3, continued

Letters

Rosemary Wilson
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page 3

Although there is a variability, note that most of the variability is above the national norm (with the removal of Grand Rapids). Grand Rapids is the only site that consistently falls below national norm. Even the most casual inspection of these data suggests that Grand Rapids is "different". And you know that it is different because it has not been implemented as a Direct Instruction site.

In absolute data, Direct Instruction, even with Grand Rapids included, out-performed the other sponsors by one-fourth to one full standard deviation on MAT Total Reading, Language, Total Math, and Spelling. Furthermore, we can document the fact that what can be achieved through the Direct Instruction approach is only partly reflected in the table above. We can show, for example, that implementation was not fully achieved in any site and that we can do better. Our questions to you are: Wouldn't it behoove Follow Through to pursue the possibility that what we are saying is true? Wouldn't it be of potential value for educating disadvantaged kids to know what really could be done with optimal implementation? Wouldn't it be valuable to have a bench mark, a standard of excellence that establishes what can be done and that can therefore serve as a goal for other projects and schools more generally?

In your letter, you assert: "Since 1968, the program emphasis ... has been on the cooperative development and evaluation of Follow Through projects, not models ..."

There are two problems with this statement. The first is that it is historically false. The second is that it places you on the horns of a serious dilemma.

1. The historical facts are these:

In his history of Follow Through prepared for the Brookings Conference on Planned Variation, Egbert asserted while referring to the planning going on in 1967: "With such limited funds, it seemed sensible to change Follow Through's primary purpose from 'service to children' to 'finding out what works'. ... Follow Through now focused its attention on developing, examining, and refining alternative approaches to the education and development of young disadvantaged children."

Fairley's five-year plan in 1971 was aimed at disseminating successful models into Title I applications, a project that was terminated because the data were not yet in. The following quote is taken from the SRI Administrative History (p. F28, quoted from Haney, 1977, p. 36): "It was clear from Mr. Fairley's comments that his interest was largely upon overall program effects and an identification of 'best' individual sponsors to guide decisions about future Follow Through program scope." [Emphasis added.]

The following statement is found in the first page of the Abt IV Report on the evaluation of Follow Through which has been accepted by the Office of Education and due for release to Congress shortly: "As part of this evaluation, the U.S. Office of Education commissioned Abt Associates in 1972 to

Figure 3, continued

Letters

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page 4

analyze the data generated by the extensive program of testing and interviewing which was part of Follow Through and to draw from them appropriate conclusions about the effectiveness of the various models' approaches to compensatory education." (Abt IV, 1977, p. xxiii) [Emphasis added.]

In his history of Follow Through in Rivlin and Timpane's book on Planned Variation in Education, Elmore states: "The idea of planned variation experimentation adopted by Follow Through was, of course, very different. Instead of specifying dimensions of variation and attempting to limit the experiment to those most susceptible to definition and replication, Follow Through administrators tried to select promising, innovative program models, leaving the question of how these models differed to a later time." (Rivlin & Timpane, p. 36)

Garry McDaniels, former director of Follow Through research, makes these statements discussing the goals of the Follow Through evaluation:

"Do the various educational strategies used in Follow Through have different effects, and do the effects endure?" (Rivlin and Timpane, p. 47) ... "The planned variation between models of various sponsors is considered to be a more reliable means of assessment than natural variation..." (Rivlin and Timpane, p. 48)

You assert that the emphasis of support is and has been on individual sites, not sponsors. This position, however, does not explain why Follow Through is organized as it is. If the emphasis is not on sponsor, why isn't there a "random variation" of approaches used in different sites? Why were sponsors introduced in the first place? The notion of planned variation makes very little sense and becomes self-contradictory if in fact there was no attempt to draw conclusions from a controlled pattern of implementation across sites. Furthermore, the National Office has commissioned studies to document the fact that different sponsors produce different patterns of implementation:

The Nero implementation study (1975) shows that sponsors are discriminable, that classroom features clearly identify different sponsors, and that there is a different pattern of performance across different sponsors. (What was the purpose of this investigation if there was no attempt to find out about sponsors, and their implementation across sites.)

Similarly, the Stallings and Katkowitz study, funded by USOE, showed through classroom observations that sponsors were discriminable in their implementation at different sites and at different grade levels. The study supported the conclusion that sponsorship is a viable concept and that sponsor implementation does lead to observable differences in classroom outcomes and in performance outcomes.

Figure 3, continued

Letters

Rosemary Wilson
November 16, 1977
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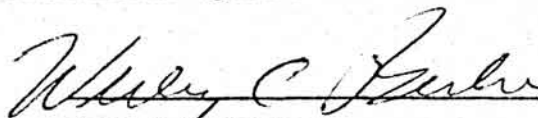
2. One horn of your dilemma is this:

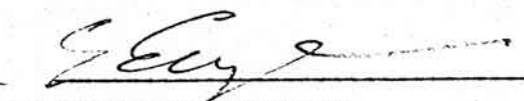
If you deny (which you apparently have done) the sponsor concept of Follow Through and deny that what was to be measured was sponsor capability, not just the capacity of different sites to produce programs, you make it transparently clear that Follow Through actually conned individual sponsors into thinking that their efforts would be reinforced if they produced positive results and that good approaches - those with uniform potential - would be disseminated. You admit that Follow Through is a sham and that all sponsors would be equals - those achieving student performance at the 50th percentile and those at the 15th percentile.

On the other hand, if you accept the sponsorship philosophy of Follow Through and the idea that the game was, from the beginning, an attempt to find out about methods, programs, approaches that are effective across different sites, different types of kids, and different ethnic groups, you are faced with the conclusion that you are now supporting many sponsors that have shown precisely no capacity to produce, and in fact are showing alarmingly consistent negative results.

We do not envy your position. However, we do not have to reinforce it and continue to be a part of an obvious travesty. We wanted to show what could be done for the kids. After nearly ten years, we find that although we succeeded, we have been rejected - not merely by the outside educational establishment from whom rejection would be a natural response - but from the agency that has funded us, that required us to hold to a moratorium on publishing comparative data before 1975, that repeatedly suggested possible expanded funding of successful models, that posed as something more elegant than a fancy Title I program. It seems apparent, however, that Follow Through at the National Level, has become a bureaucracy with no apparent advocacy for the needs of children.

What other form of significant protest do we have other than quitting Follow Through, other than by severing association with the kind of non-relevant educational agencies that we have tried to fight during the past years?


Wesley C. Becker
Professor of Special Education


Siegfried Engelmann
Professor of Special Education

cc: Richard Fairley
Thomas Minter
Ernest Boyer
Robert Egbert
Mary Berry
Representative Weaver
Representative Ullmann
Senator Packwood
Senator Hatfield
Dean R. Gilberts
Senator Nelson

Figure 3, continued
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Abt Associates, Education as Experimentation: A Planned Variation Model, Vol. 3, 1976, Vol. 4, 1977, Cambridge, Mass. Abt Associates.

Haney, W. The Follow Through Planned Variation Experiment, Vol. 5: A Technical History of the National Follow Through Evaluation, Cambridge Mass., Huron Institute, 1977.

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Boyer had data that the effective non-DI schools were aberrations and that they were so elusive that the sponsors could not even train their other schools to do what the successful school did. If there was any validity to the notion that people would visit a dissemination model for High Scope and be able to implement as well as the school visited, the sponsor would have been the first to know about this excellent site and therefore the first to try to disseminate in his other sites. This dissemination failed. The successful school remained an outlier. Therefore, there would be no hope of visiting schools being able to replicate the procedures of this school. In fact, the National Diffusion Network (NDN) did not create more than a handful of success stories for failed schools.

Schools from High Scope and other failed models were disseminated for one reason: to preserve at least a modicum of credibility to all the favored ideas and practices of mainline educational thought. If everybody failed, at least Stallings, Piaget, and the rationale that drove at least 19 of 22 models

would not be shown to be grossly inferior to the ideas and practices that innervated DI.

In terms of morality, Boyer's decision not to permit sponsors to disseminate was brutal. Why wouldn't it have been possible to fund us as a model and fund sites from other models? The consistent performance of our model affirmed that our techniques and programs were replicable and that with proper training teachers in failed schools could succeed. Why wouldn't that information be important enough to disseminate? Why did the government feel that it had to initiate some form of affirmative action to keep failed models floating?

Boyer admits that the results didn't come out the way experts predicted. Policy makers didn't have the vision of only one program excelling in basic skills and cognitive skills, or the same program excelling in reading, spelling, and math. They were not prepared for the possibility that this program would also have children with the strongest self-image.

Manipulated Data?

Earlier, I suggested the possibility that policy makers tried to sour our data by purposely including Grand Rapids as one of our sites. Two sentences in Boyer's letter may confirm this suspicion:

The evaluation found that only one of the 22 models which were assessed in the evaluation consistently produced positive outcomes. The central finding of the evaluation was that there was substantial variation in effectiveness among the sites in almost all of the models.

If these sentences are considered literally, they imply that in the original report Boyer received, not all of the models had variation. There was substantial variation in *almost all of the models*; however, one *consistently produced positive outcomes*. Possibly the addition of Grand Rapids was an intentional manipulation to create variation and thereby make it possible for conspirators Glass and House to present their argument on variability within models.

Figure 3, continued

Letters



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

DEC 19 1977

Dr. Wesley C. Becker
Dr. Siegfried Engelmann
Professors of Special Education
University of Oregon
College of Education
Eugene, Oregon 97403

Dear Sirs:

This is in response to your letter to me of November 16, 1977, in which you state among voluminous other assertions, that a statement I had made in an earlier reply to you of October 28, 1977, was "historically false." Although, as Director of the Follow Through program, I have many constructive demands upon my time that prevent my entering into what now threatens to become an endless exchange of unproductive, widely distributed, correspondence between you and myself; I am compelled to respond to that charge of falsehood.

Since, on October 28, I was writing a letter to you and not a position paper as you have now done, I felt it unnecessary to provide annotation of the sources upon which I based my statements. I do so now, however, in view of this charge which you have so widely circulated.

The Follow Through Program Manual (draft), dated February 24, 1969, was prepared and used while this program was under the direction of Dr. Robert Egbert, whose later unpublished writings your paper quotes extensively. The program manual contains on page 2, the following statement under B. Planned Variation in a Context of Comprehensive Services.

"In February of 1968, the U.S. Office of Education invited a limited number of communities (recommended by State officials) to participate in a cooperative enterprise to develop and evaluate comprehensive Follow Through projects, each of which incorporates one of the alternative 'program approaches' as part of its comprehensive Follow Through project. Generally, each of the current program sponsors concentrates on only a portion of the total Follow Through project. The remainder of the program is developed by the local community with consultant assistance."

Figure 3, continued

Letters

Page 2 - Dr. Wesley C. Becker and Dr. Siegfried Engelmann

Based on the above quotation, I made the following statement in response to your suggestion that this office recommend your Direct Instruction Model to the Joint Dissemination Review Panel.

"This is not reasonable in that it directly conflicts with OE's decision that projects, not "models" would be presented to the JDRP. This was a carefully considered decision based on the following facts.

- a. Since 1968 the program emphasis has been on the cooperative development and evaluation of comprehensive Follow Through projects not models.
- b. No single instructional approach, including that of Direct Instruction, was found to be consistently effective in all of the projects where it was tried and evaluated. Therefore, no overall claim of its effectiveness can be supported."

In 1968, I was not in the employ of the U.S. Office of Education. The draft program manual to which I refer, however, contained the guidelines used by the Follow Through program and its grantees to govern their operations until June 21, 1974 when, under my direction, the Follow Through program published in the Federal Register as an interim final regulation, its first official regulation (39 FR 22342 et. seq.)

I add that "quitting Follow Through" as a form of "significant protest" was your decision. In my opinion, it is a very destructive one to the Follow Through program and to the "poor kids" to whom you profess commitment.



Rosemary C. Wilson

Figure 4
Letters

RUSSELL B. LONG, LA., CHAIRMAN

HERMAN E. TALMADGE, GA.
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BOB PACKWOOD, OREG.
WILLIAM V. ROTH, JR., DEL.
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United States Senate

COMMITTEE ON FINANCE
WASHINGTON, D.C. 20510

MICHAEL STERN, STAFF DIRECTOR
GORDON S. GILMAN, CHIEF MINORITY COUNSEL

April 19, 1978

Wesley C. Becker, Ph.D.
University of Oregon
College of Education
Department of Special Education
Eugene, Oregon 97403

Dear Dr. Becker:

At last I received a response from the Office of Education regarding my questions on the Follow Through Program. I have enclosed their response to me with this letter. It would appear from the letter that the Office of Education and the President feel that (1) the Follow Through Program was generally not successful in producing any definitive results; and (2) that they are therefore abandoning any continuation of the program.

I would certainly welcome your comments on the points that they make in their letter.

As you know, the Subcommittee on Employment, Poverty and Migratory Labor of the Senate Human Resources Committee held hearings on S.2090 which proposed to extend the Head Start and Follow Through Programs for another three years. The Subcommittee will be marking up the bill next week.

I would greatly appreciate receiving any thoughts you have on this bill, and how I might be of any assistance to you in your program efforts. Thank you for contacting me, and I look forward to reading any comments you may have.

Cordially,



BOB PACKWOOD

Figure 4, continued

Letters



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

MAR 31 1978

Honorable Bob Packwood
United States Senate
Washington, D.C.

Dear Senator Packwood:

Thank you for your letter inquiring about the Follow Through Program. I will speak to your specific questions in order:

1. Since the beginning of Follow Through in 1968, the central emphasis has been on models. A principal purpose of the program has been to identify and develop alternative models or approaches to compensatory education and assess their relative effectiveness through a major evaluation study which compared the performance of Follow Through children with comparable children in non-Follow Through projects over a period of several years. That study had just been completed. A summary of part of the final result, which was sent to the Congress last summer, is enclosed; a more comprehensive final report will be issued in the next few weeks. The evaluation found that only one of the 22 models which were assessed in the evaluation consistently produced positive outcomes. The central finding of the evaluation was that there was substantial variation in effectiveness among the sites in almost all of the models. Accordingly (and this speaks in part to your second question), we are funding 21 of the successful sites as demonstration sites this year so that other schools and educators will learn about, understand, and hopefully adopt the successful activities and procedures taking place in these effective sites. In summary, while the initial emphasis of the program was on designing and implementing models, the evaluation results forced us to shift attention more to successful individual projects. If the evaluation findings had indicated that the various models tested were either generally effective or generally ineffective, then the subsequent demonstration and dissemination activities could have proceeded along model rather than individual project lines. However, with the exception of the Becker-Engelmann Direct Instruction model, this was not the case.

2. The President's budget recommendation for FY 1979 is to begin a phase-out of the Follow Through program. The experiment to assess this particular set of compensatory education models has been completed. It

Figure 4, continued

Letters

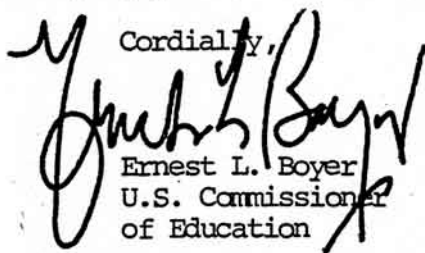
Page 2 - Honorable Bob Packwood

is felt that future research and development efforts of this nature ought to be carried out by the National Institute of Education. The Administration is proposing an increase of \$600 million in Title I of the Elementary and Secondary Education Act which will substantially expand the kind of direct compensatory education assistance which children in the Follow Through sites are receiving.

With respect to your question about funding selected models on an expanded scale, with the exception of the Direct Instruction Model this could not responsibly be done since, as I noted above, positive evaluation evidence for the other models is lacking. The same problem applies to your question about funding sponsors to disseminate information on Follow Through programs on the college and in-service levels. Since only one of the models, and therefore only one of the sponsors, was found to produce positive results more consistently than any of the others, it would be inappropriate and irresponsible to disseminate information on all the models which carried the implication that such models could be expected to produce generally positive outcomes.

I hope this information answers your questions. If I can be of any further assistance, to you, please let me know.

Cordially,

A handwritten signature in dark ink, appearing to read "Ernest L. Boyer". The signature is stylized with a large, sweeping "E" and a long, horizontal stroke extending to the right.

Ernest L. Boyer
U.S. Commissioner
of Education

Whether or not the data were manipulated, there had been a fairly extensive plot to assure that various bureaucrats told a consistent story about the intent of the Follow Through evaluation and did not contradict one another (at least until Boyer blew it with his letter to Packwood). The parties included House, Glass, the Ford Foundation, Rosemary Wilson, Follow Through, the National Institute of Education, and the Office of Education, all the way to the top.

The extent to which the distorted account of Follow Through prevailed over truth was partly revealed by an online outline of significant educational events that occurred during the 1960s and '70s.

I discovered the outline while doing research for this chapter. The outline was for a college course at Illinois State University, Political Science 233: Politics and Public Policy. The instructor was Gary Klass. The outline went into some detail about the Coleman Report and the Pettigrew interpretation of the Report, which led to bussing. The outline covered the failure of bussing and the failure of Head Start. It did have a note that a pre-school produced benefits. That pre-school was the Perry Preschool, which is High Scope.

Following the endorsement of High Scope was a heading, *Other Studies*, followed by a one-line reference to Follow Through:

Compensatory education programs show no effect.

Done.

If people like Klass didn't have a clue, the campaign to bury the truth about Follow Through had to be pretty effective.

Another way of measuring the effectiveness of the historical distortions of Follow Through is to tell the truth. On three occasions I talked about our model to non-educational audiences.

One was a Chamber of Commerce; the others were business groups that supported different school efforts. The responses were the same. After I gave the facts, at least one member of the audience would say something to the effect, "You're telling us that you achieved all these things in Follow Through but professionals in the field rejected your model. I know some people in education, and they are well informed and committed to do a good

The truth about Follow Through was silently drowned like an unwanted kitten, and nobody protested.

job. But you're saying that they would purposely ignore actual facts about student achievement. I've always believed that if someone builds a better mousetrap it will sell. You're telling us that's not true in education. I find that hard to believe. I also question whether the educational system would plot against your program if it was as successful as you claim it is."

After the third talk I resolved never to do it again, and I haven't. But I've had the same experience dealing with administrators—the frown, the headshake, and the confession, "I find that hard to believe."

The saddest part of the Office of Education's conspiracy to propagate lies and intellectual casuistry is that it makes a mockery of the vision that Robert Kennedy had when he argued for evaluation—so that educators would make sensible responses based on the outcome data.

That could have happened only if the Follow Through data were properly disseminated; however, such dissemination was unpalatable to those who had power. Stated differently, on the balance scale of reality, the weight of Jackie, Alan, and all the other poverty kids on one side didn't come close to

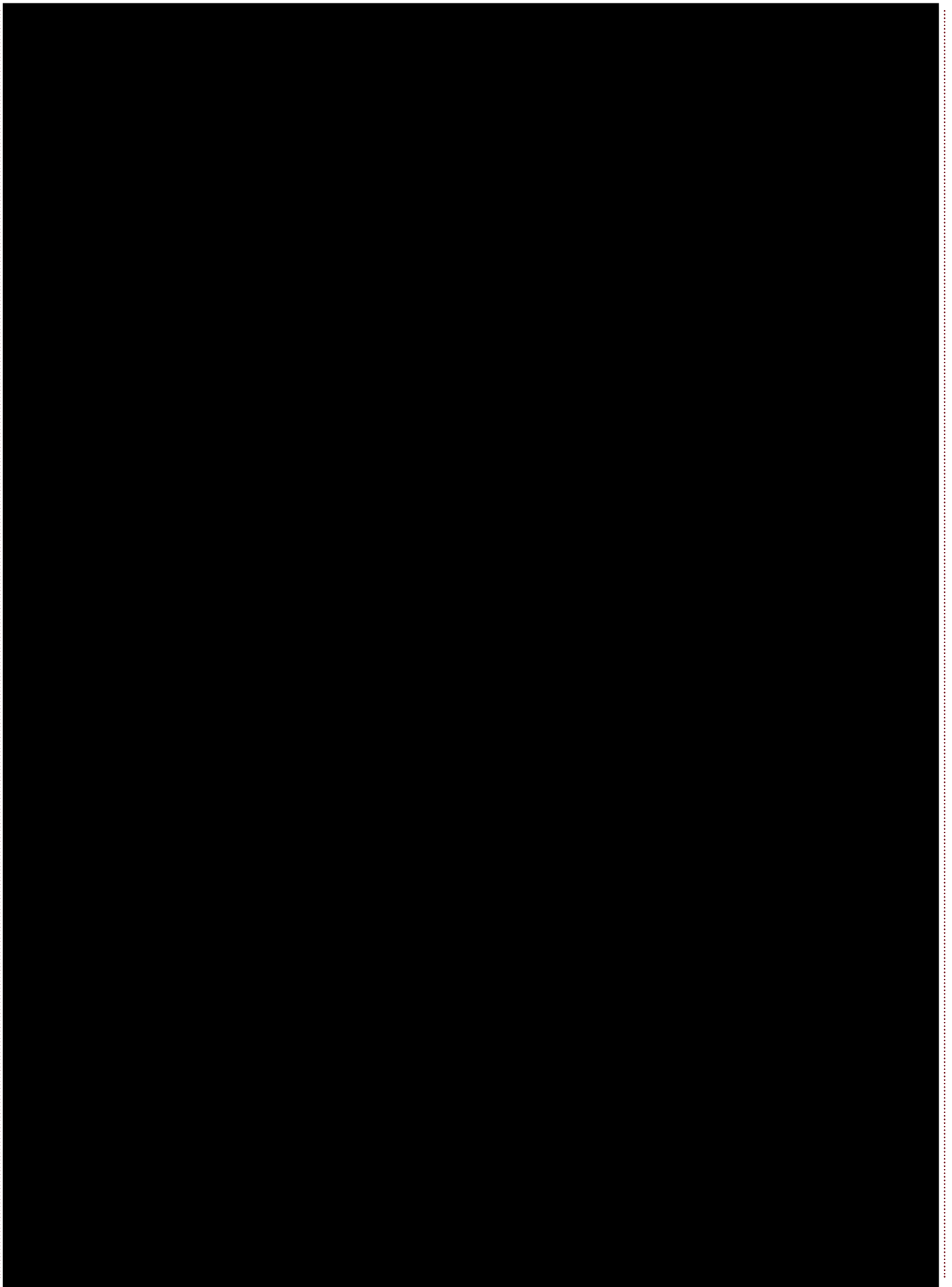
balancing the weight of influential people, their prejudices, and their financial interests on the other.

However, this failed system could have benefited in the long run if it had an understanding that the process of creating effective programs is greatly different from the approach they used; that there was a theory that explained the details; and that there were people who would have been glad to share whatever they knew about efficient ways of doing it.

During the tumult of 1977–79, I did not participate in the political side of things beyond the letter to Rosemary Wilson. I continued to develop instructional programs and work with our remaining sites, as Wes took on the bulls and the bears. Both left scars on him. After Packwood sent him the Boyer letter, Wes wrote Packwood again. Here's the last part of that letter.

The basic problem we face is that the most popular models in education today (those based on open classrooms, Piagetian ideas, language experience, and individualized instruction) failed in Follow Through. As a result there are many forces in the educational establishment seeking to hide the fact that Direct Instruction, developed by a guy who doesn't even have a doctorate or a degree in education, actually did the job. To keep those promoting popular approaches from hiding very important outcomes to save their own preconceptions will take formidable help from persons like yourself. We hope it is not too late.

Sorry, Wes. It was too late. The truth about Follow Through was silently drowned like an unwanted kitten, and nobody protested. Outfits like the NAACP and other advocacy or community-action groups should have been outraged, but they were conspicuously mute, apparently lacking the means, knowledge, or commitment needed to be more than paper advocates. The drowning was a complete success. *ADI*



Martin's Musings

Scientific Thinking

Let's begin with a few...cautionary tales.

"...And you'll know the truth, and the truth will set you free." [John 8:32]

Yeah, well, maybe.

Cautionary Tale 1: Galileo ("Seeing is Believing") Versus The Church ("Believing is Seeing")

Think about that. You get it? Okay, what's it mean?

Galileo to Kepler, 1610: "My dear Kepler," says Galileo, "what would you say of the learned here, who, replete with the pertinacity of the asp, have steadfastly refused to cast a glance through the telescope?"

"Just look through the telescope. You'll see that I'm right!"

"No! We already *know* that you're wrong."

"For Pete's sake, looooooook!"

"No!"

"What shall we make of this?" Galileo asks Kepler. "Shall we laugh, or shall we cry?" (See www.law.umkc.edu/faculty/projects/ftrials/galileo/galileo.html.)

Copernicus theorized that the sun was the center of the universe and that the earth revolved around the sun. Galileo tested the Copernican theory with data collected through his telescope. Sure enough, Copernicus was right. Galileo published his data. This got him in trouble with the Church, whose doctrine was that the earth—not the sun—was the center of the universe.

So, they put Galileo on trial. They found Galileo guilty.

The proposition that the Earth isn't the center of the world and immovable but that it moves, and also with a diurnal motion, is equally absurd and false philosophically and theologically considered at least erroneous in faith.

They sentenced Galileo to prison.

We condemn you to the formal prison of this holy office during our pleasure, and by way of salutary penance we enjoin that for three years to come you repeat once a week at the seven penitential Psalms. Reserving to ourselves liberty to moderate, commute, or take off, in whole or in part, the aforesaid penalties and penance.

And so we say, pronounce, sentence, declare, ordain, and reserve in this and in any other better way and form which we can and may rightfully employ.

Galileo was eventually vindicated. But first he died. The excesses of the Church (suppression of individual research, thinking, and speech; intransigence in the face of contradicting facts) helped to bring in the Reformation—which was not a total blessing. But Galileo's ideas (and empirical methods) won.

What does Galileo's trial have to do with education?

Some persons in this field are empiricists—but not necessarily so radically empirical that they believe we can

know *nothing* except through experience. Like Galileo, modern-day empiricists follow the facts—the data. Either (1) facts lead them to develop beliefs ("Okay, so I think it works like this...") or (2) they use facts to *test* beliefs ("Let's collect data to see if our hypotheses [beliefs] are wrong.").

However, many persons and groups in education (anti-empiricists) search for facts that support what they already believe. You can always find support. Interview enough persons and someone will agree with you. It's called "cherry picking." Anti-empiricists also ignore facts that contradict what they believe. Still other anti-empiricists collect no data at all. They know in their hearts that they are right.

"Phonics is incompatible with a whole language perspective on reading and therefore is rejected" (Watson, 1989). *Sounds like the same illogic spoken at Galileo's trial.*

"It seems futile to try to demonstrate superiority of one teaching method over another by empirical research" (Weaver, 1988, p. 220). *Is it really futile?*

"*Early in our miscue research, we concluded ... that a story is easier to read than a page, a page easier to read than a paragraph, a paragraph easier than a sentence, a sentence easier than a*

Help us out!

Contribute your story of success with DI! We want to hear from you!

You all have stories and it is time to share them. This is *your* journal—let it reflect your stories!

See the directions on page 2 on how to make a contribution. You'll be glad you did.

word, and a word easier than a letter. Our research continues to support this conclusion and we believe it to be true..." (Goodman & Goodman, 1981). *It's easy to do research in a way that supports what you believe? That's why other persons should test what you believe. It's called "independent research."*

Beware of anti-empiricists. They will sell you a mirage.

The battle between empiricists and anti-empiricists in education has been fought a long time. The anti-empiricists in schools of education, in school districts, and in national curriculum organizations (such as National Council for Teachers of English) have had control for decades. That's why there are so many untested and harmful fads—for example, in reading and math. But now, with No Child Left Behind, Reading First, and state accountability systems, the pendulum may be swinging back to scientific reasoning—rather than unfounded belief, doctrine, and speculation—to make education decisions. But the anti-empiricists are still around. Like zombies, they don't die.

Here's the lesson for persons who want to be leaders.

The truth *will* set you free—from error. But before it helps you to set other persons free, you'll be condemned by those whose power (position, control, prestige, and privilege) requires unquestioned acceptance of their doctrine. For, if it's shown that they're wrong on one count, they may be wrong on other counts; therefore, they are fallible; therefore, they must be wrong about many things; therefore, they aren't legitimate authorities and shouldn't be trusted or obeyed.

But if you yield to dictates of the powerful, and to pressures from the herd of believers in order to avoid confrontation and to feel safe, you'll become a coward. And persons (children, teachers, civilization) who depend on you for the truth and for your strength to defend *them* against

the herd and the powerful, will be sacrificed on the altar of your fear. (See <http://people.uncw.edu/kozloffm/prometheus.doc>.)

If you assert the right to think for yourself—to be skeptical, to require credible data, to challenge the group mind and the dictates of persons in power—you may be ridiculed, threatened, and even lose your job. But if you persist, you may just win. And in

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the meantime, you'll be serving something more important than your desire for temporary security (bought at the cost of your soul); namely, the truth and your moral obligation not to harm children. Besides, do you want to live on your knees?

Here's what Justice Clarence Thomas has to say on the matter (from <http://americanradioworks.publicradio.org/features/sayitplain/cthomas.html>):

If you trim your sails, you appease those who lack the honesty and decency to disagree on the merits, but prefer to engage in personal attacks. A good argument diluted to avoid criticism isn't nearly as good as the undiluted argument because we best arrive at truth through a process of honest and vigorous debate. Arguments shouldn't sneak around in disguise, as if dissent were somehow sinister or clan-

destine. One shouldn't be cowed by criticism.

In my humble opinion, those who come to engage in debates of consequence and who challenge accepted wisdom should expect to be treated badly. Nonetheless, they must stand undaunted. That is required. And that should be expected. For it is bravery that is required to secure freedom.

On matters of consequence, reasons and arguments must be of consequence. Therefore, those who choose to engage in such debates must themselves be of consequence. Much emphasis these days is placed on who has the quickest tongue and who looks best on television. There seems to be an obsession with how one looks to others; hence, a proliferation of public relations professionals and spin doctors. As I was counseled some years ago, perceptions are more important than reality. But this is madness. No car has ever crashed into a mirage. No imaginary army has ever invaded a country.

What makes it all worthwhile? What makes it worthwhile is something greater than all of us. There are those things that at one time we all accepted as more important than our comfort or our discomfort—if not our very lives: duty, honor, country. There was a time when all was to be set aside for these. The plow was left idle, the hearth without fire, the homestead abandoned.

Cautionary Tale 2: Decisions Based on Invalid Data

Iris Ledbetter, principal at Eldorado Elementary, worked with teachers to select math materials that would raise achievement. They chose *Holistic Math* (I made up that name). Staff worked hard, but achievement didn't rise. It fell. The materials were poorly designed. Sadly, neither Ms. Ledbetter nor the teachers knew how to

examine the evaluation research base for *Holistic Math*—which would have shown that: (1) the researchers used such broad definitions of achievement that changes in *non-math* behaviors (such as student “interest in math”) made the materials look good, even though the kids did poorly on many *real* math skills; and (2) the researchers didn’t control for, or even consider the effects of, extraneous variables (such as maturation) that accounted for some of the alleged progress of children in their research. Result? Students at Eldorado got poor math instruction three years in a row. So, it was nearly impossible to succeed with middle school math. Nice work, Iris!

Cautionary Tale 3: Decisions Based on a Simplistic Picture of the Causal Process

Jose’ Ramirez, assistant principal at Hoarse Coyote High School, planned and implemented remedial reading. He and his teachers examined the evaluation research bases for many remedial reading programs and wisely selected the one with the most credible data showing effectiveness. Mr. Ramirez made sure that teachers in the remedial reading classes were trained to high proficiency and implemented the programs carefully. Yet,

student progress was minimal—far below what the research had led Mr. Ramirez to predict. Why? Because Mr. Ramirez presumed that the causal relationship was like Figure 1.

In fact, however, the effectiveness of the program *also* required that teachers in content areas (math, history, literature) help students to apply or generalize reading skills from their remedial class to new materials, and this would have required planning, direction, and supervision (leadership and management). In other words, the causal sequence is really like Figure 2.

Too bad, Mr. Ramirez. You’re a great guy, but you need to think with more precision.

Cautionary Tale 4: Sucker for a Sales Pitch

William Tecumseh Shermanski, principal at Cannonball Middle School, was so impressed by presentations at a conference on “Learning and the Brain” that he purchased a new program for his school—*Brain Blow-out*. (I made up that name.) The materials were cheap but required lots of planning and instructional time. Totally wasted! Teachers began to see Mr. Shermanski as a poor leader.

“Gee, like we don’t have enough to do without idiotic fads!”

Despite his cool Yankee uniform, his good intentions, and his heroic name-sake, Mr. Shermanski was fooled by a sales pitch that used evocative phrases like “*Brain Blow-out* strengthens functions in both hemispheres,” “is research based,” “involves authentic learning,” and “is holistic and natural.” Too bad he wasn’t buying candles and incense instead of instructional materials.

Surely, you don’t want to be ineffective.

Surely, you don’t want to *waste* money, time, energy, and teachers’ trust?

Surely, you don’t want people to think you’re a *nincompoop*.

You can avoid these unpleasanties if you think scientifically.

Here’s a place to start:

- <http://people.uncw.edu/kozloffm/scientifichinking.doc>
- <http://people.uncw.edu/kozloffm/fallacies.doc> *ADI*

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Figure 1
Presumed Causal Relationship



Figure 2
Actual Causal Sequence

