



National Institute for Direct Instruction

Response to the PCS Review of *Reading Mastery*

By the National Institute for Direct Instruction (NIFDI)

The National Institute for Direct Instruction (NIFDI) has addressed concerns of Pinellas County Schools (PCS) regarding the research and effectiveness of *Reading Mastery* that appeared in a single page document. Below, you will find responses from NIFDI, including references to applicable research. The assertions from the PCS paper appear in italics followed by NIFDI's response. References are provided on the last page.

A. Review of literature – the scientific rigor of studies on *Reading Mastery*

PCS Assertion: Several research studies that reported effectiveness of the program lack a scientific research approach, and they lack specific description of the sample or the comparison group.

NIFDI's Response: The PCS document didn't identify which studies supposedly lack a scientific research approach. Several meta-analyses have recently looked at the scientific research base for DI and have given it a strong rating:

- Borman, et al. (2003) examined the research base of 29 comprehensive school reform models and concluded that DI produced the strongest effects of all models examined.
- Hattie (2009) examined 304 studies and found an average effect size for DI that was larger than those of any other curriculum he examined.
- See also: American Federation of Teachers (1998) and Herman (1999) in the reference list below.

B. Effectiveness with general education students

PCS Assertion: Many studies that reported success have used only ESE students.

NIFDI's Response: Studies on *Reading Mastery* have found success with all types of students. There is no indication in the literature of differential results with ESE students. In a search of the NIFDI database (available at www.nifdi.org), only 46 of 141 studies focused on special education students. One of these studies is a 2011 research study (Stockard, 2011^a) comparing *Reading Mastery* and *Celebrate Reading's* effects on reading comprehension of general education 4th graders in southern Illinois. The study found that students receiving instruction in *Reading Mastery* gained an average of nearly 13 points, while students receiving instruction in *Celebrate Reading* gained only an average of eight points.

C. Reading Mastery's effect on reading comprehension

PCS Assertion: Oral Reading Fluency (ORF) was used to measure the effectiveness of the programs in the early years; ORF is not the best measure of Reading Comprehension.

NIFDI's Response: A large literature documents strong correlations between ORF and reading comprehension. However, the superior results of *Reading Mastery* have been found with a wide variety of measures. In the early years, a wide variety of measures were used to demonstrate the effectiveness of the DI reading programs. In Project Follow Through (1977), the largest educational experiment in the history of the US, DI reading was found to be superior to all other educational approaches in reading comprehension. The reading comprehension instruments used in Follow Through included all test batteries of the Metropolitan Achievement Test (MAT). Various comprehension measures have been used to demonstrate the effectiveness of *Reading Mastery* in recent years.

D. Reading Mastery's impact on FCAT scores

PCS Assertion: Results of studies conducted in Florida using FCAT shows that performance of students in the program follows the state's trends.

NIFDI's Response: Where DI has been implemented with fidelity in Florida, very positive results have been obtained on the FCAT. In Jacksonville, between 2001 and 2004, Love Grove Elementary, Englewood Elementary, Normandy Elementary and Arlington Heights Elementary schools increased from a C school grade to an A school grade, while Norwood Elementary went from an F grade to a C grade. Englewood continued to receive A grades for an additional 3 years, with as many as 86% of students reading at a level 3 or higher as the school continued to implement Direct Instruction.

In Miami, several DI schools in Miami reported especially strong improvements on the FCAT in 2002. South Point and Feinberg Fisher moved from an F school grade to an A school grade. South Hialeah and Auburndale moved to an A school grade.

In Sarasota, Alta Vista Elementary School rose from a D school grade to an A school grade from 1999-2004.

E. Effectiveness with a wide range of students

PCS Assertion: Reading Mastery has shown success as an instructional tool to be used with some groups of students, especially within the ESE population.

NIFDI's Response: *Reading Mastery* and other DI programs have been found to be effective with all groups of students. From his meta-analysis of meta-analyses, John Hattie (2009) concluded that the positive results of DI were “similar for regular ($d=.99$) and special education and lower ability students ($d=0.86$), ... [and] similar for the more low-level word-attack ($d=.64$) and also for high-level comprehension ($d=.54$)” (pp. 206-207).



F. Studies of *Reading Mastery* used as a core curriculum

PCS Assertion: There were not any studies that used the program as a core curriculum.

NIFDI's Response: A large number of studies have used *Reading Mastery* as a core curriculum. Large-scale studies that employed *Reading Mastery* as the core include:

- A study of 30,000 Florida students conducted by researchers at the Florida Center for Reading Research and Florida State University compared *Reading Mastery* and several other reading programs used as the core curriculum. In the study, *Examining the Core: Relations Among Reading Curricula, Poverty, and First through Third Grade Reading Achievement* (2009), the authors tracked the performance of students in first through third grades. The authors found very favorable results for *Reading Mastery*: "Overall, students in the *Reading Mastery* curriculum demonstrated generally greater overall oral reading fluency (ORF) growth than students in other curricula. Also, they more frequently met or exceeded benchmarks for adequate achievement in first, second, and third grade."
- In 1997, the Rodeo Institute for Teacher Excellence (RITE) began the implementation of *Reading Mastery* as the core reading program in six Houston area schools in grades K-2. In four years, the program expanded to 20 schools. An external assessment of the program found that students in the program outperformed their peers in comparison schools and were significantly more likely to score above the 50th percentile on standardized assessments than comparison students. They also noted an increase of 14% of students passing the 3rd grade Texas Assessment of Academic Skills by the third year of the program implementation.
- In Baltimore, 16 schools used *Reading Mastery* as the core curriculum. Students at schools using *Reading Mastery* that received support from the National Institute for Direct Instruction (NIFDI) significantly outperformed students from other Baltimore city schools on the Comprehensive Test of Basic Skills (CTBS).

Other studies showing the effectiveness of *Reading Mastery* as the core curriculum can be found on the NIFDI Research Database at www.nifdi.org.

G. Recent studies on *Reading Mastery*

PCS Assertion: It seemed as no research studies were conducted in past 6-7 years.

NIFDI's Response: The NIFDI Research Database lists seven articles on Direct Instruction published in 2011, five in 2010, and 20 more from 2006 to 2009. These include:

- The 2009 study by Crowe, et al. discussed above showing the superiority of *Reading Mastery as a core reading program* in comparison to other reading programs among 30,000 students in Florida.
- A 2011 study at the Rimes Early Learning and Literacy Center in Leesburg, FL that demonstrated the effectiveness of *Reading Mastery* with Kindergarten students on the FAIR test (Stockard, 2011^b).



H. What Works Clearing House (WWC)

NIFDI's Response: The WWC conducts specialized reviews of curricula and interventions with very narrow parameters for evaluation:

- At the time *Reading Mastery* was reviewed, the WWC only accepted articles that were published after 1985. This excluded dozens of articles that evaluated *Reading Mastery* as a core curriculum program, including studies related to Project Follow Through, the largest educational research study in the history of the US.
- The WWC awards the highest rating only to those studies that employ randomized assignment of subjects to the treatment and experimental groups. Randomized assignment is nearly impossible to do with core reading curricula because this would require the participation of at least 60 schools in the study (to provide enough subjects for achieving significance) that would be willing to implement whichever reading curricula they were randomly assigned.
- After the WWC finishes a report, it does not update the report. Twenty studies on *Reading Mastery* have been published since the WWC report came out, including the 2011 study at the Rimes Early Learning and Literacy Center in Leesburg, FL that utilized random assignment of students to the treatment and control groups (Stockard, 2011^b). These 20 studies have not been analyzed or incorporated into the WWC report on *Reading Mastery*.

I. Student data from Pinellas County Schools (PCS)

PCS: The Reading Mastery has been used in several of the PCS elementary schools, primarily with ESE students.

Even though the limited available data does not lend itself to a scientific research, a cursory examination of the data revealed the following:

- *The Reading Gains on FCAT from 2009-2010 and 2010-2011 school years were used.*
- *The Reading Gains of the ESE students from schools, which had the Reading Mastery program, was compared to the Reading Gains of ESE students from similar schools without the program.*
- *The results show minimal difference between the percentages of students who had Reading Gains from these two sets of schools; the percentage of students with Reading Gain from the schools that had not used the Reading Mastery program was slightly higher.*^{PcsB}

NIFDI's Response:

The National Institute for Direct Instruction (NIFDI) is dedicated to assisting schools implementing *Reading Mastery* and other Direct Instruction programs as the core instructional programs. Since its formal creation in 1997, NIFDI has supported DI implementations in approximately 150 school in 18 states, including several large-scale implementations in Baltimore (16 schools) and Guam (24 elementary schools). In all of these schools, the following model components have been in place to ensure that the programs are implemented with fidelity and are effective with all students:



- A full-time, on-site (building) coordinator in each school employed by the district to facilitate the implementation. The coordinator functions as the lead coach with teaching responsibilities for at least the first year.
- Only DI programs in use in the school(s) for agreed-upon grade levels and subject areas.
- An academic kindergarten with reading and language instruction.
- Aides in grades K-2 at least to ensure necessary student:teacher ratios.
- Two full reading periods a day for a) all students in Kindergarten and 1st grade and b) below-grade learners in grades two and above.
- Student placement for instruction by skill level and a commitment to regrouping students as needed.
- Emailing the results of in-program assessments to NIFDI personnel.
- A budget that supports release time for DI training and other elements of the NIFDI program.
- Full participation of the entire staff in support of the model.
- Principal leadership as demonstrated through participation in meetings and conference calls, visiting classrooms, and setting priorities that support the implementation of the model.

NIFDI was not involved in the implementation of DI at PCS elementary schools, so we cannot make any accurate statements about the effectiveness of the DI implementation in those schools. NIFDI would be happy to discuss with PCS the possibility of establishing one or more model DI schools that would demonstrate the effectiveness of *Reading Mastery* and other DI programs with PCS students.

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