

# Supplemental Instruction in Early Reading: Does It Matter for Struggling Readers?

ELLEN MCINTYRE  
University of Louisville

DENESE JONES  
University of Kentucky

SHERRY POWERS  
Western Kentucky University

FAYE NEWSOME  
Eastern Kentucky University

JOE PETROSKO  
University of Louisville

REBECCA POWELL  
Georgetown College

KELLY BRIGHT

National Center for Family Literacy

**ABSTRACT** The authors compared phonics and reading comprehension achievement of 1st-grade children and reading achievement of 2nd-grade children who received daily supplemental reading instruction with the achievement of children who did not receive supplemental instruction. The authors collected data through individual administration of phonics and reading tasks, classroom observations and field notes, and teacher interviews. First- and 2nd-grade children served by models that included daily instruction as a supplement to their regular classroom reading instruction achieved significantly higher scores on the reading comprehension measure than did students in the models without this feature. Yet, authors found no significant differences between the 1st-grade students in the 2 groups on phonics measure. Findings have implications for policy making when educators decide to include supplemental instructional opportunities in their overall school literacy plan.

**Key words:** early reading, struggling first-grade and second-grade readers, supplemental instruction

The importance of early reading cannot be understated. Children who struggle with reading in the early grades often remain behind their peers throughout school, and academic progress in all subject areas suffers. The Administration of President George W. Bush designed the No Child Left Behind (NCLB) Act in reaction to the many children who have “slipped through the cracks” in the primary grades and who subsequently struggled in school. Reading First, a salient component of NCLB, has recently guided the reading curriculum and programs in many states. One required component of Reading First is that states and districts provide supplemental instruction to students who do not progress within the regular classroom instructional model. The regulations significantly emphasize that the additional instruction *supplements*, not supplants, students’ regular reading instruction program and that these programs target students who are still behind their peers. The regulations encourage intensive individual or small-group instruction.

Despite complaints about some aspects of Reading First, such as lack of local control over education and criticism of the legislation as just another era of federalized testing and

curriculum control (Allington, 2002), researchers and educators (Shanahan, 2002) have approved and even expressed relief at the inclusion of provisions for struggling readers. The International Reading Association (2000) has issued a position statement on “children’s rights” in regard to reading instruction. One of those rights states that “Children who are struggling as learners have a right to receive supplemental instruction from professionals specifically prepared to teach reading.” Reading programs now include supplemental components to their reading materials to attract districts to their instructional models. That addition to many teachers’ reading instruction is often celebrated, but it also needs further examination. Does supplemental instruction help struggling readers? We examined students’ phonics and reading comprehension achievement after 1 year in relation to whether they received supplemental reading instruction.

## *Early Reading Intervention as a Supplement to a Literacy Program*

In the last few decades, the field of literacy has experienced a shift toward concern about children who historically have been left behind. Whereas many educators advocate improved overall practices of primary-grade teachers (Allington, 2002; Anders, Hoffman, & Duffy, 2002; Pearson, 1999; Pressley, 2002), others emphasize the need for early-intervention programs for children at risk for school failure. Of the many interventions, some are supplemental programs that educators designed as an addition to students’ regular classroom instruction. The idea behind supplemental programs is that students are part of a heterogeneous class of students that participate in daily work with their peers, and during another part of the day (sometimes before or after school but often during academic time other than literacy instruction), participate in small groups or

---

*Address correspondence to Ellen McIntyre, Department of Teaching and Learning, College of Education and Human Development, University of Louisville, Louisville, KY 40292. (E-mail: ellen@louisville.edu)*

receive one-on-one focused attention on specific literacy needs with students of like ability.

Interventions have various instructional foci; some reading interventions focus on systematic phonics, whereas other interventions focus on the development of a love of literature. Studies of such interventions that targeted children who were struggling with literacy in the primary grades clearly showed that children who received intervention services outperformed children who received only "status quo" (Hiebert & Taylor, 2000, p. 467) instruction, regardless of the focus of instruction. The organizational and instructional features across the interventions reviewed by Hiebert and Taylor included (a) small-group or one-on-one teaching, (b) reading and rereading a variety of texts in 1 week, (c) self-monitoring of reading, (d) regular assessment, and (e) writing to develop phonemic awareness and subsequent phonics skills. Nearly all studies that we reviewed included kindergarten and first-grade children.

Several comparison studies suggest that some instructional interventions are more helpful than others. Pinnell, Lyons, Bryk, and Seltzer (1994) compared the effectiveness of Reading Recovery, a popular one-on-one reading intervention for first graders, with three other instructional models and a control group. Two of the interventions were one-on-one tutoring models and the other groups were whole-class instructional models. The students who received Reading Recovery training in addition to their regular classroom instruction performed best on all measures, followed by the other tutoring models, illustrating that individual tutoring may be "necessary, but not sufficient" for struggling readers to make adequate progress (p. 31). In an independent evaluation of Reading Recovery (Shanahan & Barr, 1994), effects of the program were mixed and raised new questions about supplemental interventions in general.

In other comparison studies, researchers have examined tutoring programs that occur within larger instruction models (e.g., Wasik & Slavin, 1993). For example, in the schoolwide reading program, Success for All, children in Grades 1–3 receive tutoring every day for 20 min in addition to their regular instruction that has the same content and pedagogical focus. In a study comparing the model to others that offer one-to-one tutoring, students who received one-to-one tutoring outperformed those who received small-group or whole-group instruction. However, students who received a tutoring model that was integrated into their regular classroom instruction (such as Success for All) had the most significant results (Wasik & Slavin).

Still other studies illustrated that supplemental training on skills in small or large groups of students can enhance literacy performance. One study conducted by the National Institute of Child Health and Human Development (NICHD) illustrates that only 15 min of daily phonological training activities in addition to regular instruction can help kindergarten children accelerate their growth in phonological training (Foorman, Francis, Fletcher, Schatzschneider, & Mehta, 1998).

Another study of supplemental instruction serving small groups (Gunn, Molkowski, Biglan, & Black, 2000) reported that primary-grade children who received supplemental instruction performed significantly better on word attack skills, word identification, fluency, vocabulary, and reading comprehension measures than did those who had not received supplemental instruction. The same findings applied to students whose first language was not English (Goldenberg, 1994; Gunn et al.; Hudson & Smith, 2001). In those cases, the supplemental instruction occurred with small groups of students at least three times a week for 30 min or more and focused on the measured skills.

In a review of five supplemental programs, Pikulski (1994) found that a common feature of five interventions was that each intervention was in addition to, not a substitute for, the instruction that students received as part of their regular programs. Whereas some of the programs, such as Reading Recovery, were pull-out programs with little coordination with the instruction in the regular classroom, others were conducted by the regular classroom teachers. All five programs were successful at preventing reading problems. However, those interventions that were coordinated with the regular classroom program resulted in the highest gains on student achievement measures.

Clearly, some studies support supplemental instruction in early reading as an intervention for preventing reading failure. However, there is a paucity of studies that examine effects for students beyond first grade and even fewer with individually administered measures of phonics and reading comprehension. We contribute to the literature by examining how first- and second-grade students achieve on measures of phonics and reading comprehension after receiving supplemental instruction for 1 year. We focus on the following research questions:

Do first graders achieve more knowledge of phonics after they receive supplemental instruction?

Do first- and second-grade students achieve more knowledge of reading comprehension after they receive supplemental instruction?

## Method

### *Background*

In 1998, the legislature in the state in which this study took place passed a bill designed to improve literacy achievement. The first initiative was that the legislature establish the Early Reading Incentive Grant (ERIG) program in which schools competed for grants, matched in dollar amounts by their schools, to adopt instructional models that would improve the reading achievement of primary-grade students reading at low levels. We conducted a large study in which we examined the implementation and effects of the state program.

Some of the instructional models adopted through the state program included supplemental instruction for struggling readers, which was incorporated into their overall literacy instruction plan. We examined the effects of 1 year of supplemental instruction on first-grade children considered struggling readers on their phonics and reading comprehension achievement, along with second-grade children considered struggling readers on their reading comprehension achievement.

### *Participants*

The study included 196 children in 17 schools. We invited teachers to participate through their principals and requested teachers who were particularly successful at implementing the instructional model awarded through the grant program for at least 1 year. The principals distributed consent forms to teachers; upon selection, we explained to each teacher that the children we wanted to study were those struggling with reading or learning to read. We asked that by October 1 of the first year of the study, the teachers identify the lowest achieving 20% of students in their classes. Consenting students became the targeted group of children that we tested on the phonics application and reading tasks. The gender distribution was 57.2% boys and 42.5% girls. The student ethnicity distribution was 79% Caucasian, 16.3% African American, and 4% Other (mostly Latino). In terms of economic level, 56.5% received federal free breakfasts and lunches and 25.5% did not (18% were unknown). The 29 teachers who participated in the larger study had from 3 to 27 years of experience; 27 teachers were women (all White except 1 African American) and 2 were men.

*Instruments.* We tested children on Clay's Hearing Sounds in Words Test (Clay, 1993), a phonics application task that includes encoding a sentence, and on the Flynt-Cooter Informal Reading Inventory, a reading assessment that includes a record of errors, oral and silent reading of fiction and nonfiction passages, retellings of each passage, and comprehension questions (Flynt & Cooter, 2001).

On the Clay test, the examiner read two sentences to the child: "The bus is coming fast. It will stop here to let me get on." Then the sentences were read again, word by word, and the children encoded the sentence as the researcher/author dictated. We encouraged the children to do the best that they could with the spelling and "use the sounds of words to write as much as you can." The children scored a point for each letter or group of letters they wrote that correctly corresponded to the sounds in the words. Children could score from 0 to 37 on the test. We selected Clay's test because we believed that it is a more authentic assessment of phonics understanding and use than are more traditional phonological tests. Only the first-grade students took the test because they represented the age group for which the test originally was normed.

The Flynt-Cooter Informal Reading Inventory requires children to read fiction and nonfiction passages, retell what they read, and answer a series of comprehension questions. The passages include wordless picture stories at the lowest level in which the child "reads" pictures to complex written passages at the highest level. We selected an informal reading inventory because we wanted an assessment of reading comprehension and an error count that resulted in a numerical score (grade level) by which we could compare achievement. We selected the Flynt-Cooter Informal Reading Inventory for first and second graders because the stories were more interesting and appropriate for our participants than were those in other inventories we examined.

*Data collection.* The project director and the first author trained the other authors to use each of the testing instruments listed above. The training involved an explanation and demonstration of the testing procedures and observation of videotapes of the project director testing various children. We scored the children's tests and discussed results, then provided more explanation and demonstration. Children received pretesting during October and November of Year 1 of the study and posttesting during May. During Year 2, we tested the children in September and May. Children were tested in one-on-one situations in quiet places, arranged by the classroom teacher or grant administrator for periods of no more than 30 min at a time. Pretesting took approximately 30 min per child and posttesting took 60–90 min per child for most children; we met each child two or three times. We attempted to make the children comfortable and rewarded them afterwards with stickers. We also tape recorded all reading passages.

*Analysis of achievement data.* Clay's Hearing Sounds in Words phonics test ranges from 1 to 37, with intervals of 1. Children gained an average of 11 points, typical of children in first grade as compared with national norms (Clay, 1995). That finding indicated that children made better use of phonics in order to communicate. Examples of children who scored at the average and high ranges are illustrated below.

*Student 1.* In the fall of first grade, this student knew something about phonics and could use it a bit to write. She began with a score of 25 with the following: "The bs is cming it wll stp nr to lt mi go ot." In the spring, she wrote, "The bus is cmeing. It will stop her to let me get on," which received a score of 35, showing a growth score of 10 points.

*Student 2.* This student showed much growth. She started with a score similar to the previous child but made more progress on the test. In the fall of first grade, she scored a 20 with, "The b cr is cing et y t tp r to lt me go fo." In spring, she got a perfect score (37) by writing, "The bus is coming. It will stop here to let me get on."

Reading scores assessed by the Flynt-Cooter passages indicate the grade level on which the average child was reading during the pre- and posttesting periods. (See Appendix A for Flynt-Cooter scoring.)

Two of the authors were trained to individually score every Clay test; these scores were compared against one another for accuracy. When we disagreed about a score, a third author joined the conversation and the group negotiated the final score. Three authors examined and scored approximately three fourths of the Flynt-Cooter reading tests. Those tests deemed less clear were scored subsequently by a project director who was an expert in oral reading assessment and who listened to each oral rendition of the fiction and nonfiction reading samples, then made the final judgment. Then, after we entered all data into the database, two authors reviewed the tests for each child individually for accuracy in data entry.

We statistically analyzed test score data in two ways. First, we subtracted subpretest scores from posttest scores. We used the resulting gain scores as dependent variables in a *t* test; the independent variable was supplemental instruction. Second, we used ANCOVA with the (a) posttest score as the dependent variable, (b) pretest score as the covariate, and (c) independent variable as supplemental instruction. The research question for the quantitative analysis was, Do first- or second-grade children who receive daily supplemental instruction in addition to their regular literacy instruction statistically outperform children who receive only regular instruction after 1 year?

#### *Data Collection and Analysis of Practices*

We collected data on the instructional models by (a) observing the teachers and taking field notes and (b) interviewing the teachers about their practices.

*Observations.* We contacted schools and made arrangements to observe the teachers who had been identified previously as fully implementing the instructional model adopted through the state program and whose students we had assessed on the literacy measures. We visited each teacher twice during the year and observed from 30 to 180 min during each visit, depending on how long literacy instruction and supplemental instruction were conducted. The average amount of time observed was 90 min. Researchers sat in the room and recorded what the teachers said and did in the form of field notes that they later typed and filled in, so that each account read like a story of what happened during the visit.

*Interviews.* The researchers interviewed the classroom teachers the same day the observations were made. The questions that we asked included (a) how children were selected for testing (to ensure that we were studying the bottom 20%); (b) whether target children received other additional literacy-related services (such as after-school tutoring); (c) whether observed instruction was the child's regular or supplemental instruction; (d) how often children received supplemental instruction each week, for how long, and when; and (e) who else we should interview to acquire a complete picture of the children's instruction. (See Appendix B for interview protocol.)

*Inclusion in the analysis.* After all observations and interviews were complete, we analyzed data qualitatively by using procedures from Miles and Huberman (1994). Through the analyses, we identified those students who received supplemental instruction as children receiving a structured daily or almost-daily literacy experience in addition to their regular literacy instruction. We used the term *literacy experience* to include those children who were involved in daily or almost-daily literacy activity as part of a planned effort to provide supplemental help but who might not always have had direct contact with teachers. We grouped all children who received supplemental instruction and compared their achievement with those who received no additional instruction. Supplemental instruction was intended in some instructional models but not in others. Also, in some models, supplemental instruction was supposed to happen, but was not enacted. Thus, we looked beyond model titles to what occurred as the teacher enacted them.

In the larger study, less than half of the children that we tested received supplemental instruction according to our definition. Only 39 first graders and 20 second graders received at least 30 min of additional instruction each day, even though the original intent of the state bill was to fund interventions. The first graders included 2 children in the Book Club, 6 children in Carbo Reading, 11 children in the early intervention group, 10 children in a locally designed model, and 10 children in the Reading Recovery group. Of the 20 second graders, 7 children participated in Carbo Reading, 7 children participated in the early intervention group, and 6 children participated in the locally designed model. Table 1 lists the amount of time that the children spent in instruction that supplemented other literacy training and the primary activities that characterized the instruction.

*Book Club.* Teachers at the participating schools designed the Book Club intervention so that children would read entire books and then discuss them in "Oprah style" conversations. Several teachers in one school adopted the Book Club model. However, only one teacher implemented the program regularly so that we could designate the students as receiving supplemental instruction; this teacher served only 2 of the target children. The teacher held an after-school Book Club where children read and talked about chapter-length books. The club included all children who wanted to participate, not just struggling readers. The group met twice a week, but the teachers expected children to read the Book Club books at home every night for 20–30 min, in addition to their regular literacy reading during the school day. Thus, three of the five daily sessions included no interaction with a teacher.

*Carbo Reading.* Carbo Reading is a literacy program that we used to focus on meeting the individual needs of learners through assessment and attention to students' particular learning styles. With Carbo Reading, teachers match

**TABLE 1. Supplemental Instruction Models**

Model	Number of students		Minutes per week	Instructional focus
	Grade 1	Grade 2		
Book Club	2	0	150	Read books and talk
Carbo Reading	6	7	150	Read books on tape; read with a teacher
Early Intervention	11	7	150–225	Word work, reading, writing
Locally Designed	10	6	225	Reading little books; strategy instruction
Reading Recovery	10	0	150	Reading little books; strategy instruction; individual coaching
Total	39	20		

instructional activities to students' learning styles, whether auditory, visual, or kinesthetic. Thus, materials such as books on tape or three-dimensional characters from books become important for some learners. Two schools implemented the Carbo model but only one school included students in supplemental instruction. That school employed a "Carbo coach" to take children aside during the school day and give them one-on-one coaching while they read. Or, the coach arranged for the students to "read" stories on tape by using headsets. In some cases, students listened to the tapes two or three times with little or no interaction between the repeated readings. In both methods, the coach met with each child in a conference to discuss what the students read. The coach asked questions that encouraged students to think about the meaning of the story; the questions tended to be based on literal recall or knowledge level. We included the 6 children targeted for the program in the analysis of supplemental instruction because they received at least 30 min of additional literacy attention each day.

*Locally designed model.* This supplementary reading intervention was developed locally by using Reading Recovery as a model for specific reading strategies instruction. In the locally designed model, the teacher worked for 45 min daily with small groups of children who were reading at the same level. The primary activity was the repeated reading of small-sized books with explicit instruction on strategies and teaching skills in context. An instructional aide who had been trained by a Reading Recovery teacher taught the locally designed model.

*Early reading intervention.* The early reading intervention model, developed by Taylor, Strait, and Medo (1994), provided daily in-class remedial instruction to 3–6 struggling readers for 30–45 min. The supplemental instruction was in addition to the students' regular literacy instruction and was conducted by the regular classroom teacher. The model involved approximately 10–15 min of word work, 10–15 min of reading-connected text, and 10–15 min of writing in response to the reading. Although we intended that the early reading intervention would be supplemental, it was not always the case. That is, in some of the classrooms, teachers used the intervention instruction time as the chil-

dren's reading instruction. Thus, for this analysis, we included only those students who participated in the early reading intervention when it supplemented their regular classroom instruction.

*Reading Recovery.* Reading Recovery is a widely known program designed to give first graders extensive help to elevate their scores to grade level. The teachers were well trained and worked one-on-one with the children for 30 min every day. The 10 Reading Recovery children missed 30 min of regular instruction (for some it was literacy, for others it was another subject), but the children still received at least 2 hr of other literacy instruction provided by their regular teachers; thus, their intervention was supplementary according to our definition.

## Results

Thirty-nine first-grade children and 20 second-grade children served by models that included daily intensive instruction as a supplement to their regular classroom reading instruction achieved significantly higher on the Flynt-Cooter reading passage than did 84 first-grade and 43 second-grade children who did not receive supplemental instruction. We performed ANCOVA with (a) the posttest on the Flynt-Cooter reading passages test as the dependent variable, (b) pretest as the covariate, and (c) group (daily supplemental instruction or no daily supplemental instruction) as the dependent variable. We analyzed data from children in the first grade. The posttest for the students receiving supplemental instruction (*Adj. M* = 1.59, *SE* = 0.08, *n* = 39) significantly exceeded that of students who did not receive supplemental instruction (*Adj. M* = 1.38, *SE* = 0.05, *n* = 84),  $F(1, 20) = 4.64, p = .03$ . A *t* test comparing mean gain scores for the instructional treatments was not significant,  $p = .06$ .

We applied similar analyses to the data from second graders in the study. For the students receiving supplemental instruction, ANCOVA revealed that the Flynt-Cooter posttest (*Adj. M* = 3.00, *SE* = 0.14, *n* = 20) significantly exceeded that of the students who did not receive supplemental instruction (*M* = 2.64, *SE* = 0.09, *n* = 43),  $F(1, 60) = 5.02, p = .03$ . In addition, the mean gain for the second-

grade students who received supplemental instruction ( $M = 0.53$ ,  $SD = 0.66$ ,  $n = 20$ ) significantly exceeded mean gain for students who did not receive supplemental instruction ( $M = 0.15$ ,  $SD = 0.60$ ,  $n = 43$ ),  $t(61) = 2.23$ ,  $p = .03$ . The evidence suggested a positive effect for daily supplemental intensive instruction.

There were no significant differences between the phonics achievement of the 39 first-grade children who received daily supplemental instruction in addition to their regular classroom reading instruction and the 84 first graders who did not receive supplemental instruction.

## Discussion

Why did the supplemental reading instruction raise students' achievement on the reading comprehension measure? Why did that instruction not raise the achievement of first graders on the phonics measure? Those questions are discussed and explained in light of what we know about early reading, interventions, and supplemental instruction. First, however, we qualify those findings within the limitations in this study.

### Limitations

This type of classroom study is at risk for contextual constraints. We believe that our decision to test children individually—and follow them as individuals—revealed substantially more valid findings than would standardized, paper-and-pencil tests. Yet, we recognize that poverty, home discourse and literacy practices, education level of mothers, general abilities of individual children, and other variables affect achievement (Hart & Risley, 1995; Lareau, 2000; Miller, 1995; Purcell-Gates, 1995). Although our longitudinal design and ethnographic techniques combat some of the research constraints, similar studies are needed for educators to understand patterns of student achievement.

Another limitation originates from one of the strengths of the design of this study. Because we initially determined supplemental instruction through qualitative analyses, we could not structure the study to include large numbers of one kind of supplemental study. Thus, we grouped all variations of supplemental instruction if they qualified by our conservative definition (daily or almost-daily literacy for an additional 30 min or more). Although students included in the analysis did receive supplemental instruction, across the 39 first graders and 20 second graders, the details of what happened in those settings differed somewhat. Therefore, we cannot make policy suggestions regarding any particular kind of model.

### Supplemental Instruction and Reading Achievement

Although most literacy scholars agree that quality classroom instruction in the primary grades is the single best weapon against reading failure (Pressley, 2002; Snow,

Burns, & Griffin, 1998), most also agree that despite excellent instruction, some children need more time with their teacher and time in small-group settings rather than whole-class instruction. Our study supports supplemental reading for struggling readers in first and second grades.

We are not surprised that the children who received daily instruction in literacy, in addition to their regular classroom instruction, performed better than did those who received regular instruction only, however good the regular teaching might have been. We expected that the more children read, the better readers they would become (Allington, 2002). In all five of the supplemental models, students read connected text as the primary activity each day or nearly each day in addition to instructional activities that were part of their regular instruction. More reading time usually occurred with more help or scaffolding as the children read, that is, more time with the teacher. Although in some models additional feedback did not occur every day (such as in the Book Club and Carbo Reading), students had additional time with the teacher to discuss the reading that they did on their own. Thus, we expected that the children who received more instruction would spend more time reading text and receiving more help. Wasik and Slavin (1993) emphasized that supplemental instruction can increase the amount of time that a child reads text, although they emphasized the importance of feedback. That is a simple but important finding.

Many teachers, however, know that just setting time aside for additional reading does not always help low achievers read more (Delpit, 1995; Purcell-Gates, 1995). Much research, especially from the field of special education (Klenk & Kibby, 2000), has illustrated that quality teaching (not just quantity) is key to improved achievement. If children simply get more of the same inferior teaching, one can reasonably believe that they will become more disengaged. Low-quality teaching can often lead to wasted time on the part of struggling readers. Thus, we hesitate to state that supplemental instruction works without also reminding readers that the supplemental instruction models were taught by teachers who were nominated by their principals as those who best implemented the instructional models. That leads us to believe that those teachers were not conducting poor instruction but were conducting instruction that led to increased reading for the children in this study.

### Why Not Phonics?

We were not surprised to find nonsignificance with the phonics measure. Although Clay (1993) designed the Hearing Sounds in Words test for first graders, it has a ceiling (score of 37) that prevents us from knowing exactly how much the students could have achieved had we used a different measure. Perhaps the difference between the achievement of students who received supplemental instruction and those who did not was too subtle for us to detect. Furthermore, the children who received the supplemental instruction and achieved higher scores in reading

may have reached the ceiling on the phonics test; maybe the reading passage is a better assessment of growth even with first graders than are other assessments. Yet, if the measure is not at fault, there are other explanations, as described in the following paragraphs.

We know from key historical studies that children learn what they are taught. In 1967, a series of studies was published that examined student achievement in light of instructional models (Bond & Dykstra, 1967/1997). In those first-grade studies, researchers examined a number of nonbasal instructional programs and compared them with the widely used basal programs at that time. Findings overall illustrated that students whose programs focused on phonics did better on those measures than did students in programs that did not have that focus. The follow-through studies (Barr, 1984) yielded similar results. The methods classified as "emphasizing the mechanics of reading" produced higher achievement on word knowledge and spelling than did other programs. "No model proved more effective on . . . reading comprehension" (Barr, p. 552).

We did not include any systematic phonics instruction in any of the supplemental models. Three of the models did include phonics instruction, which included word work (early intervention), decoding as a strategy for online reading (locally designed model and Reading Recovery). Yet, there was no structured, systematic instruction as endorsed by many educators (Adams, 1990; Bear, Invernizzi, Templeton, & Johnston, 2000; Foorman et al., 1998). Instead, the primary activity in children's instruction was reading-connected text; thus, our finding on improved comprehension, but not phonics, is not a surprise. The National Reading Panel (National Institute of Child Health and Human Development, 2000) has recommended systematic phonics instruction for all children in primary grades rather than "hit or miss" phonics.

Educators might argue that as long as children achieve on the reading comprehension measure (which, in this case, also included error counts), a measure of phonics is not important. We want to be careful, though, that we do not give the impression that it is perfectly fine for educators to ignore phonics achievement as long as scores on other reading assessments remain adequate. Although we know that phonics is only a subskill of reading and that it is possible for children to raise their reading comprehension levels without raising their phonics achievement, we also recognize that this could lead to future problems for some children. Too many struggling readers in the upper elementary grades are those students who do not have a firm grasp of phonics and who cannot advance their reading when confronted with new, lengthy words to decode (Adams, 1990; Bear et al., 2000).

## Conclusion

We support the review of intervention studies by Hiebert and Taylor (2000). Studies of such interventions,

which targeted children who were struggling with literacy in the primary grades, clearly show that children who received intervention services outperformed children who received only the "status quo" (Hiebert & Taylor, p. 467). Also, it seems that for the struggling readers in this study, their being part of "something extra" was not a negative labeling practice, but instead an effective way for them to boost their literacy achievement. Perhaps the students engaged mentally in the work because they had more interaction time with an adult. That theory has been illustrated in studies of outstanding teachers (Pressley, 2002); studies of tutoring and early interventions also bear this out (Pikulski, 1994; Torgeson, 1998). Students who receive more academic attention simply perform better. We determined that the inclusion of supplemental instruction as an option for schools attempting to reach all students is worth considering.

## REFERENCES

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Allington, R. (2002, December). *Principles for reading instruction*. Paper presented at the first annual National Reading Teacher Conference Teacher Workshop, Miami, FL.
- Anders, P. L., Hoffman, J., & Duffy, G. G. (2000). Teaching teachers to teach reading: Paradigm shifts, persistent problems, and challenges. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. III, pp. 719-742).
- Barr, R. (1984). Beginning reading. In P. D. Pearson, R. Barr, M. L. Kamil, & P. B. Mosenthal (Eds.), *Handbook of reading research* (Vol. 1, pp. 550-575). Mahwah, NJ: Erlbaum.
- Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2000). *Words their way: Word study for phonics, vocabulary, and spelling instruction*. Upper Saddle River, NJ: Merrill.
- Bond, G. L., & Dykstra, R. (1967/1997). The cooperative research program in first-grade reading instruction. *Reading Research Quarterly*, 32, 345-427.
- Clay, M. M. (1993). *Observation survey*. Portsmouth, NH: Heinemann Educational Books.
- Coles, G. (2000). *Misreading reading: The bad science that hurts children*. Portsmouth, NH: Heinemann Educational Books.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York: The New Press.
- Flynt, E. S., & Cooter, R. B. (2001). *Reading inventory for the classroom* (4th ed.). Columbus, OH: Merrill Prentice Hall.
- Foorman, B. R., Francis, D. J., Fletcher, J. M., Schatzschneider, C., & Mehta, P. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology*, 90, 37-55.
- Goldenberg, C. (1994). Promoting early literacy development among Spanish speaking children: Lessons from two studies. In E. Hiebert & B. M. Taylor (Eds.), *Getting reading right from the start* (pp. 171-200). Boston: Allyn & Bacon.
- Gunn, B., Biglan, A., Smolowski, K., & Ary, D. (2000). Supplemental instruction for first grade Latino readers. *Journal of Special Education*, 34, 90-103.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experiences of young children*. New York: Brooks.
- Hiebert, E., & Taylor, B. (2000). Beginning reading instruction: Research on early interventions. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 455-482). Mahwah, NJ: Erlbaum.
- Hudson, R. F., & Smith, S. W. (2001). Effective reading instruction for struggling readers: A combination of two literatures. *Intervention in School and Clinic*, 37, 36-49.
- International Reading Association. (2000). Making a difference means making it different: Honoring children's rights to excellent reading

- instruction. Retrieved from [http://www.reading.org/resources/issues/positions\\_rights.html](http://www.reading.org/resources/issues/positions_rights.html)
- Klenk, L., & Kibby, M. W. (2000). Literacy and children with learning disabilities. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 667–690). Mahwah, NJ: Erlbaum.
- Lareau, A. (2000). *Home advantage: Social class and parental intervention in education*. New York: Rowman and Littlefield.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Miller, L. S. (1995). *An American imperative: Accelerating minority educational advancement*. Cambridge, UK: Cambridge University Press.
- National Institute of Child Health and Human Development. (2000). Report of the National Reading Panel. *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC.
- Pearson, P. D. (1999). A historically based review of preventing reading difficulties in young children. *Reading Research Quarterly*, 34, 231–246.
- Pikulski, J. J. (1994). Preventing reading failure: A review of five programs. *The Reading Teacher*, 48, 30–39.
- Pinnell, G. S., Lyons, Byrk, & Seltzer. (1994). Comparing instructional models for the literacy education of high-risk first-graders. *Reading Research Quarterly*, 29, 9–39.
- Pressley, M. (2002). Effective beginning reading instruction. *Journal of Literacy Research*, 34, 165–188.
- Purcell-Gates, V. (1995). *Other people's words: The cycle of low literacy*. Cambridge, MA: Harvard University Press.
- Shanahan, T. (2002). Research-based reading instruction: Mythos about the National Reading Panel report. *Reading Teacher*, 56, 646–655.
- Shanahan, T., & Barr, R. (1994). Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners. *Reading Research Quarterly*, 21, 360–406.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Taylor, B. M., Strait, J., & Medo, M. A. (1994). Early intervention in reading: Supplementary instruction for groups of low achieving students provided by first grade teachers. In E. H. Hiebert & B. M. Taylor (Eds.), *Getting reading right from the start: Effective early literacy interventions*. Needham, MA: Allyn & Bacon.
- Torgeson, J. K. (1998). Catch them before they fall. *American Educator*, 22, 32–38.
- Wasik, B. A., & Slavin, R. E. (1993). Preventing reading failure with one-to-one tutoring: A review of five programs. *Reading Research Quarterly*, 28, 178–200.

**APPENDIX A**  
**Flynt-Cooter Scoring**  
**(Adapted from stories in Flynt-Cooter Reading Inventory, 1993)**  
**Posttests (Form B)**

Score	Grade level	Description
0	Beginning kindergarten	If the child reads "The T-Ball Game" by telling, using oral-like language only
.5	Middle kindergarten	If the child reads "The T-Ball game" using "written-like language" but does not read any words
1.0	End kindergarten/Beginning 1	If the child is text-focused when reading "The T-Ball Game" and knows at least one word
1.5	Middle 1	If the child can read "The T-Ball Game" (1–2 miscues OK) and retells what was read
2.0	End 1/Beginning 2	If the child reads "Birthday at the Zoo" (fiction) and "Bears" (nonfiction) successfully
2.5	Middle 2	If the child reads either "Mary's New Bike" (fiction) or "The Night Sky" (nonfiction) successfully <u>OR</u> one of the stories at a higher level
3.0	End 2/Beginning 3	If the child reads "Mary's New Bike" (fiction) and "The Night Sky" (nonfiction) successfully
3.5	Middle 3	If the child reads either "Bedtime" (fiction) or "Flying Flowers" (nonfiction) successfully <u>OR</u> if the child reads a text at a higher level successfully



**APPENDIX B**  
**Interview Protocol**

Date\_\_\_\_\_ Researcher\_\_\_\_\_

Teacher\_\_\_\_\_ Position\_\_\_\_\_

School\_\_\_\_\_ Instructional Model\_\_\_\_\_

Please list the target children you observed. (Use back if needed.)

How were they selected for testing?

Do these children receive any other additional literacy-related services?

How typical is the lesson or lessons I observed?

What else happens regularly that I didn't observe?

How closely does the instruction observed match the intended model? How is it different? Why is it different?

Is what I observed the child's "regular" instruction or "supplemental" instruction?

How often does a given child receive this instruction each week? For how long? When?

Daily\_\_\_\_\_ 1-2 times a week\_\_\_\_\_ 3-4 times a week\_\_\_\_\_

Once a week \_\_\_\_\_ During school\_\_\_\_\_ After school hours\_\_\_\_\_

What else is the child getting (in terms of literacy instruction)? Extended school services? Tutoring? Who else should I interview?

How do you assess the children's progress?

Is there parent/family involvement? How?

Other comments:

Copyright of Journal of Educational Research is the property of Heldref Publications. The copyright in an individual article may be maintained by the author in certain cases. Content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.