How Much Should Young Children Read? A Study of the Relationship Between Development and Instruction

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ABSTRACT

The purpose of this article is to question the amount of time that beginning readers should spend reading connected text in school. Based on a study of 66 children in 26 classrooms, the authors found that children in first-grade classrooms with *less* reading of connected text achieved more in their phonics learning than children in classrooms with *much* reading of connected text. There were no significant differences on broader measures of reading achievement. Yet, because the participants in the study were first-grade "struggling" readers, they may have been developmentally ripe for the phonics instruction they received, making blanket statements calling for more systematic phonics programs misleading when consideration of children's development is not taken into account. Further, the authors argue that in the earliest stages of beginning reading, time spent reading might be best spent mediated by the classroom teacher, such as through repeated readings, choral or echo reading, paired reading, or assisted oral reading.

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Many educators continue to advocate classroom practices that emphasize the social aspects of teaching (Tharp & Gallimore, 1993; Vygotsky, 1987), and in some, the dialogic aspects as well (Tharp & Galimore, 1993; Vygotsky, 1978). Often referred to as *constructivist pedagogy* (Phillips, 2000; Richardson, 2003), major organizations such as the National Council of Teachers of English and the National Council of Teachers of Mathematics have borrowed this philosophy. In constructivist theory meaning is constructed in the mind, and language and culture play important roles. Imperatives of this pedagogy include student-centered instruction, group dialogue, planned and unplanned formal knowledge taught through explicit instruction when needed, opportunities to challenge ideas provide, and the development of meta-awareness (Richardson). These practices extend from Vygotskian theory, as will be discussed later in this article.

In primary-grade constructivist classrooms, common practices can often identify a teacher's constructivist orientation to the teaching of reading. For example, students are read to from great literature; they are provided opportunities to participate in rich discussion about the meaning and content of the text; there is an emphasis on joint work, such as choral reading and readers' theater; and children are taught strategies for word recognition, decoding, and comprehension. In these classrooms there is often a designated period for independent reading of personally chosen texts. In many classrooms this period is called "sustained silent reading" (SSR) or "drop everything and read" (DEAR) time. In others it might be referred to as "reading workshop" time. Some of the current texts that advise teachers in creating these environments (Taberski, 2000; Routman, 1999; Miller, 2002) underscore the reading of books as the primary work for young children.

It makes intuitive sense that in order for children to gain skill in reading they must spend time practicing reading. Theories of reading achievement of elementary-school students emphasize the critical need for more reading practice for young children, especially children who struggle with reading. In particular, Stanovich's theory (1986) on individual differences in reading suggests that reading experiences and reading achievement have a reciprocal relationship; that is, there are causal connections in both directions. However, while some theorists claim that such variables as self-esteem, time spent reading, or positive attitudes towards books increase reading achievement, Stanovich asks whether it is actually improved reading skill that leads to improved self-esteem, positive attitudes, and volume reading, or whether an interaction among these variables is at work. In any case, his theory summarizes that those who are good readers only become better readers, and those who begin school with few skills remain behind. Indeed, the widely cited Report of the National Reading Panel on teaching young children to read (National Institute of Child Health and Human Development [NICHD], 2000) that reviews many studies of begin-

ning reading, documents that the best readers read the most and the poorest readers read the least. However, the authors of the report also caution that these findings do not imply causation (p. 7).

STUDIES OF CLASSROOM READING TIME

According to Vygotskian theory, an assumption can be made that at some point in their reading development, children need time for independent practice that is closely monitored by the teacher. However, few empirical studies support this assumption. Research on the amount of time children spend reading and subsequent reading achievement is scarce, especially studies involving children who are just becoming readers as are the first graders in the current study.

The studies that do exist raise questions about how much time children spend reading during the school day (Durkin, 1978; Knapp, 1995; Langer, Applebee, Mullis, & Foertsch, 1990; Duke, 2000a; 2000b). For example, in a study of 20 high- and low-socioeconomic status (SES) first-grade classrooms, Duke found that on average students spent an average of 10.6 minutes per hour "with written language" each day. This included any activity such as completing worksheets, reading books, or writing, in which children worked with text of any "level" (letters, words, sentences, or whole books). While the low-SES classrooms offered more print exposure overall than the high-SES classrooms (though not significantly higher), the students in the low-SES classrooms spent almost 40% of their time with print at the letter and word level, while the high-SES students spent nearly 50% of their time with "extended" or "connected" text. Duke suggests that this difference clearly favors the high-SES students; however, she did not measure student achievement.

One large-scale, longitudinal study conducted by Michael Knapp and his colleagues (1995) examined instruction and student learning in 140 elementary classrooms, drawing correlations between approximately one-third of those classrooms characterized as having a skills-based approach to teaching and approximately one-fourth of those classrooms as having a meaning-centered approach. They assessed students on reading comprehension, writing composition, and basic skills of reading and writing, among other things. They also compared the results for students in the lowest third of the overall achievement distribution with those in the highest third, in efforts to determine whether the instructional approaches were best-suited to advanced or struggling learners.

Through correlational techniques and while controlling statistically for other differences among classrooms that might influence outcomes, Knapp and his colleagues (1995) found that students who received the most meaning-orientated instruction learned the advanced skills of reasoning, problem solving, comprehension, and composition better than the students who received skills-based instruction. In general, the students in meaning-centered classrooms also

learned basic skills at least as well as the students in the skills-based classrooms, except in the area of reading skills for first-grade children. For example, the children in the meaning-centered classrooms did not learn word attack skills as well as the children in the skills-based classrooms. Finally, the meaning-centered approaches worked as well for the students at the low end of the achievement continuum as they did for the high-performing students in the study. While these studies suggest that classrooms with a meaning focus may have students reading more extended text, these studies did not actually measure how much time was designated for independent reading or the reading of connected text.

A few studies have measured achievement in relation to time spent reading. In general, studies of SSR in classrooms serving adolescents show positive results. Taylor, Frye, & Maruyama (1990) asked students in Grades 5 and 6 to record their time spent reading silently during their reading instruction and at home, keeping track of both assigned reading and reading for pleasure. Students averaged 15.8 minutes of reading during the 50-minute class and 15.0 minutes at home. Time spent reading during reading instruction contributed significantly to students' reading achievement. Few studies of primary-grade children show similar results. In 2000, the National Reading Panel report illustrated that instructional practices such as SSR are widely used (NICHD, p. 3-1), but that empirical support of a positive relationship between encouraging reading and either the amount of reading students do or their reading achievement is lacking (p. 3-3). This is not new information. In 1980, Collins suggested that, "There is no empirical evidence that sustained silent reading can produce the benefits that advocates credit to it" (Collins, 1980, p. 110).

One reason for the paucity of empirical evidence of the benefits of independent reading may be that children are not actually reading during these designated reading times. It may be that in workshop style classrooms, some children spend more time socializing or looking at books than actually reading. It may be that some children who do not read well or are not taught explicitly what to do and how to engage in reading, are not actually reading in these settings. Indeed, almost 20 years ago, Lisa Delpit suggested as much with respect to writing process classrooms (1986; 1988), suggesting that "process" instruction was not always appropriate for children outside of the "culture of power" (1988), such as students from minority or low-SES backgrounds. If children are not clear on what they are to do or how to do it, however valuable the activity might be to some, they will likely not be cognitively engaged in the activity or benefit from it.

Reading time in which teachers guide or closely monitor the engagement of students can be referred to as *mediated* reading time. Several studies of repeated readings or similar strategies in which readers read connected text for considerable periods of time are examples of mediated reading time. In general, these studies indicate a positive relationship between mediated reading time and achievement. For example, Homan, Klesius, and Hite (1993) studied the effects

of repeated readings and other strategies for reading connected text on the transfer of skills with sixth-grade struggling readers over a 7-week period, 60 minutes per week, advocating " …the value of allocating time for students to engage in connected reading" (p. 98).

Repeated readings were also shown to (a) increase fluency for learning disabled third-grade students (Sindelar, Monda, & O'Shea, 1990); (b) increase the general reading performance of second graders (Dowhower, 1987); and (c) improve third graders' speed and word recognition (Rasinski, 1990; Taylor, Wade, & Yekovich, 1985). Why does repeated reading work? Schreiber (1980) suggests that the practice of repeated readings facilitates the discovery of the appropriate syntactic phrasing in the written signal, that is, "parsing strategies," that are required for sense-making while reading.

Thus, reading time that is monitored by the teacher is of key importance. Allington's famous question, "If they don't read much, how are they ever gonna get good?" (1977) raised issues about how much time remedial readers spend reading. Reitsma (1988) studied the effects on the reading ability of first graders using three different ways to practice reading. These included (a) guided reading—in this case, round robin reading; (b) reading while listening to a tape-recorded story; and (c) independent reading with feedback. Guided reading and independent reading were significantly more effective than reading-while-listening or the control group, indicating that *reading* improves reading, more so than listening. In a similar study, two kinds of reading practice—repeated readings and independent practice—were studied. Both were found to significantly improve the reading performance of second graders (Dowhower, 1987).

Likewise, in a study of children's reading strategies in three differing classroom contexts (whole class, small group, and independent), McIntyre (1992) found that first graders employed the strategies they were taught when engaged in reading with the teacher in a small group session. In both the whole-class reading and independent reading time, the children seemed not to push themselves to read beyond their independent levels, nor were they as engaged with the text as when in the small group. Importantly, the independent reading time in this study was without feedback, in contrast to the Dowhower study described above. In both studies, the most valuable time for reading for the children was time with the teacher.

Time with the teacher has been shown to be relevant in other studies of reading. In a recent study involving a different group of students and teachers than the present study employed, McIntyre et al. (2005) found that the children who received supplemental reading instruction in addition to their regular instruction achieved more than the children who received only the status quo instruction. This occurred across a variety of intervention types. The difference may be due to the additional feedback and coaching provided by teachers in the supplemental instruction groups.

How much time do first-grade teachers provide for their students to read connected text? Do first-grade children in classrooms with more time devoted to reading connected text read better than children in classrooms with less time devoted to reading connected text after 1 year? Do they perform better or worse on measures of phonics? These questions were the focus of this study.

METHOD

This study involved 26 first-grade teachers in 10 schools, and 2–5 struggling first-grade readers in those classrooms (for a total of 66 students). We invited teachers to participate in the study after contacting principals and asking them to recommend teachers who were particularly successful at implementing the instructional reading model adopted by the school. The principals distributed consent forms to interested teachers, and when they were selected the researchers explained to each teacher that the children we wanted to study were those students who were 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% in their classes. Consenting students became the targeted group of children who were tested on the phonics application and reading tasks.

Reading Time in First-Grade Classrooms

We collected data on reading instruction in two ways—by observing the teachers and taking field notes, and by interviewing the teachers about their practices. Schools were contacted and arrangements were made to observe the teachers. We visited each teacher four times and observed between 90 and 180 minutes during each visit, depending on how long literacy instruction was conducted in the classroom. Researchers sat in the room and recorded what the teacher said and did in the form of field notes. One important feature of our field notes was the regular marking of time. In an effort to understand how teachers distributed their instructional time for various activities, we recorded the time in the margins of our field notes approximately every 5 minutes.

The researchers interviewed the classroom teachers on the same day that the observations were made. Among the questions we asked were (a) How typical was the observed instruction?; (b) How were the children selected for testing? (to ensure that we indeed were studying the bottom 20%); (c) Do target children receive other additional literacy-related services such as after-school tutoring?; (d) Is the observed instruction the child's "regular" instruction or "supplemental" instruction?; (e) How often does a target child receive supplemental instruction each week, for how long, and when?; and (f) Who else should we interview to obtain a complete picture of the instruction a given child receives?

After all observations and interviews were complete, we analyzed data qualitatively using procedures suggested by Miles and Huberman (1994). To

begin the analysis we first defined *connected text* as "…texts of meaningful sentences or longer; that is, more than one connected sentence," although in this study a connected text was usually an entire story. Then we clarified activities that comprised examples of *opportunities to read connected text*. Practices included in that category were (a) echo reading; (b) choral reading; (c) guided silent reading; (d) guided oral reading; and (e) established periods for independent reading, such as SSR or what some teachers call readers workshop. Activities excluded from this category included (a) read-aloud story time; (b) times when the teacher was directly teaching something that did not involve the reading of connected text (e.g. a phonics lesson); (c) times when students completed worksheets that included only words or unrelated sentences; (d) drill of individual words; and (e) time spent on nonprint responses to literature.

Next, we highlighted in field notes when students were provided opportunities to read connected text. We calculated the percentage of time in such activity against the total time designated for language arts instruction. Using group consensus, we grouped classrooms into three categories—those having *much* opportunity to read connected text during all four observations, those having an *average* amount of time with connected text, and those having *little* time. While we analyzed the instruction in 46 classrooms as part of a larger study, we include only those classrooms classified as *reads much* and *reads little* in this present study.

Seven teachers in four schools were categorized as having *reads much* classrooms, in which they provided 40% or more of their instructional time for reading connected text. Thus, if the instructional period was 120 minutes long and the children had opportunities to read connected text for more than 48 minutes of that time, the classroom was classified as *reads much*. The reading instruction in these classrooms varied. Five of the seven teachers did not use commercial programs. Four of the seven teachers taught reading in small groups, meeting with each group two to five times each week. The five teachers who did not use commercial programs relied on children's literature to teach reading. In two cases the instruction was conducted in individual conferences once per week and the "work" of the instructional period was to read or write independently. In other classrooms, there was a designated time for independent reading. All seven classrooms had large collections of literature.

The phonics instruction in these *reads much* classrooms also varied. Some teachers were systematic in their phonics instruction (e.g., used a phonics program). Other teachers in this group were only observed teaching phonics incidentally and through applying phonics to spell inventively in order to write in journals. In three classrooms phonics instruction was not observed at all. In one of the classrooms the teacher was highly explicit about both phonics and comprehension instruction. For example, in all four observations in her classroom the teacher provided opportunities to read and talk about books. Also, within each small-group reading lesson, she taught phonics for 10–15 minutes

Figure 1. Descriptors of *Reads Much* Classrooms

Classrooms Programs*	1 FB	2 FB	3 FB	4 ES	5 TWC	6 TWC	7 SRA
Uses commercial program				X			X
Uses literature as primary teaching tool	X	X	X		X	X	
Teaches in whole class							X
Teaches in small groups	X	X		X	X		
Teaches in individual conferences			X			X	
Uses a phonics program					X		X
Phonics instruction observed no program	X	X		X			
No phonics instruction observed			X			X	
Large literature collection	X	X	X	X	X	X	X
Independent reading period	X	X	X	X	X	X	X

*FB = Four Blocks; ES = Early Success;
TWC = Together We Can (locally developed); SRA = SRA Mastery Reading

through a published phonics program. Figure 1 summarizes the instruction of the *reads much* teachers.

Nineteen teachers in six schools were categorized as having *reads little* classrooms—those classrooms in which the teachers provided less than 20% of the language arts period for the reading of connected text across all four observations. Thus, for example, if the language arts period was 120 minutes long and the students had opportunities to read for less than 24 minutes, this instruction was placed in the *reads little* category.

Most of the teachers in this group used a structured, scripted program such as SRA Mastery Reading, formerly called DISTAR. The reading instruction primarily relied on whole-group reading of basal stories, with groups ranging from 15–22 students. While the early stories included in the program had highly controlled language, the later basal offerings contained some literature of high quality (e.g., authors of trade books were included) and a variety of genre such as fiction, nonfiction, and poetry. A phonics program was included in all of these classrooms. In two classrooms the teachers did not use a published

Figure 2. Descriptors of *Reads Little* Classrooms

Classrooms Programs*	1–9 SRA	10–12 SRA	13–17 SRA	18 BTL	19 FB
Uses commercial program	X	X	X	X	
Uses literature as primary teaching tool					X
Teaches in whole class	X	X	X	X	
Teaches in small groups					X
Teaches in individual conferences					
Uses a phonics program	X	X	X	X	X
Phonics instruction observed no program					
No phonics instruction observed					
Large literature collection	X		X	X	
Independent reading period	X	X			X

*SRA = SRA Reading Mastery; BTL = Breakthrough to Literacy; FB = Four Blocks

program of any kind, but were observed teaching phonics. About half of these teachers had a designated period for independent reading; however, in some of these classrooms, the opportunity was reserved for children who completed their work. In more than half of these classrooms there were large collections of literature. In all these classrooms the time children spent reading was minimal. In nearly all observations, when stories were read, they were read aloud once in round robin fashion, and then students moved to work on skills. Figure 2 summarizes the instruction of the *reads little* teachers.

Comparison of Student Achievement

Instruments

First-grade children were tested using Clay's Hearing and Recording Sounds and Words task of the Observation Survey (1993), a phonics application task that includes encoding a sentence. We also tested the children using the Flynt-

Cooter Informal Reading Inventory (2004), 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.

On the Clay test the examiner reads two sentences to the child: "The bus is coming fast. It will stop here to let me get on." Then the sentences are read again, word-by-word and children encode the sentence as the researcher dictates. The children are encouraged to do the best they can with the spelling and to "use the sounds of words to write as much as you can." The children score a point for each letter or group of letters they write that correctly correspond to the sounds in the words. Children can score from 0 to 37 on this test. This measure of phonics is an authentic assessment of phonics understanding because it asks children to apply their knowledge. Further, the test was originally normed on first graders (Clay, 1993).

On the Flynt-Cooter Informal Reading Inventory children are asked 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 (called "grade level" in this case) by which we could compare achievement (Flynt-Cooter, 2004).

Data collection

Researchers were trained using each of the testing instruments listed above. The training involved an explanation and demonstration of the testing procedures and observation of videotapes of the primary investigator testing various children, followed by practice scoring and the discussion of results. Children were pre-tested during the month of September and post-tested during the month of May in one-on-one situations in quiet places arranged by the classroom teacher or grant administrator for periods of no more than 30 minutes at a time. While the pre-testing took approximately 30 minutes per child, the post-testing took 60–90 minutes per child, as most children could read more at the end of the year requiring two or three sessions to complete the test administration. The researchers attempted to make the children comfortable and rewarded them afterwards with stickers. All reading passages were tape-recorded.

Analysis of achievement data

Clay's Hearing and Recording Sounds and Words phonics test has a range of 1–37, with intervals of 1. The Flynt-Cooter graded passages assessment has a range of 0–6, with .5 as an interval. Two trained researchers individually scored each Clay test and these scores were compared against one another for accuracy. Where there was discrepancy in scoring, a third researcher also reviewed the data and the group negotiated the final score. Two trained researchers, includ-

ing the project director, scored each reading sample by listening to the tape-recorded readings. Flawed administrations of the test were omitted from the analysis. As completed scorings were entered into a database, two team members reviewed each score for accuracy in data entry.

In this study, test score data were analyzed in two ways. First, pre-test scores were subtracted from post-test scores, resulting in gain scores that were used as dependent variables in a t-test with the independent variable being time spent reading connected text. Secondly, the analysis of covariance (ANCOVA) was conducted with the post-test score as the dependent variable, the pre-test score as the covariate, and time spent reading connected text as the independent variable.

RESULTS AND DISCUSSION

The children in first-grade classrooms categorized as *reads little* gained significantly more on the phonics measure (Clay, 1993) than the first-grade children in the *reads much* classrooms after 1 year. There were no significant differences between the reading achievement of first graders in the *reads much* classrooms and the *reads little* classrooms across 1 year. These findings will be elaborated upon and discussed in light of research on beginning reading and on theory and research outlining young children's literacy development.

Phonics, Reading Time, and Children's Development

The children in first-grade classrooms categorized as *reads little* gained significantly more on the phonics measure (Clay, 1993) than the first-grade children in the *reads much* classrooms after 1 year. The average gain score of children in the *reads little* classrooms ($M = 13.87$, $n = 45$) was significantly higher than the average gain of the children in the *reads much* classrooms ($M = 9.19$, $n = 21$) in an independent samples t-test, $t(56) = -2.22$, $p < .04$. However, it is important to note that the first graders in the *reads little* classrooms started out on the pre-test with a significantly lower mean ($M = 19.19$, $n = 51$) than the first graders in *reads much* classrooms ($M = 26.19$, $n = 21$) as revealed by an independent samples t-test, $t(70) = -2.84$, $p < .01$. In other words, given their low starting point, the students in *reads little* classrooms could gain considerably more, and they did. This difference, however, was not sustained. On the phonics post-test the mean score for children in *reads little* classrooms ($M = 33.00$, $n = 45$) was not significantly different than the mean score in the *reads much* classrooms ($M = 35.38$, $n = 21$) as shown by an independent samples t-test, $t(64) = -1.67$, $p > .05$.

It is not surprising that first graders in the *reads little* classrooms outscored students in the *reads much* classrooms on the phonics measure. Theories of literacy development suggest that all children go through a period in their

literacy acquisition when they exclusively focus on words and word parts over meaning (Biemiller, 1970; Freppon, 1991; Hiebert & Taylor, 2000; Mason, 1984; McIntyre & Freppon, 1994; Purcell-Gates, 1996; Sulzby, 1985). There is movement from a great reliance on syntactic and semantic cues when reading to an increased use of graphic information (Barr, 1984; Biemiller, 1970; Clay, 1991; Ehri, 1991; Ferriero & Teberosky, 1982; Mason, 1984). In the McIntyre & Freppon study, researchers traced the development of phonological understandings of six children in two different settings (constructivist and skills-based) from the beginning of kindergarten through the end of first grade. All six children moved through a stage in which they focused on phonological understandings and individual words over meaning, despite differences in instruction. Similarly, the children in both groups in the present study were all first graders, the typical time in their development when they focus on the "innerworkings" of written language (Dyson, 1984). Sulzby (1985) referred to this as an "aspectual" stage of reading, a stage in which readers struggle with mastering the code to the exclusion of meaning-making. This stage often indicates that children are just becoming readers, a period in which much assistance is critical (Tharp & Gallimore, 1993).

Because the two groups differed developmentally in their phonological knowledge, they were likely in different stages of learning to read at the beginning of the study. Consequently, differences in amount and type of phonics instruction quite possibly were appropriate to the needs of each of the groups. Recall that the average score for the 45 struggling readers in this group was 19.19 on the Clay measure, indicating that, as a group, these children had more phonics to learn. The instruction they received via these models (i.e., heavy phonics focus) was sufficient for assisting them in their acquisition, raising the group average to 33 out of a total score of 37.

Thus, while development plays a part in these findings, so too does instruction. As stated, most of the teachers in the *reads little* classrooms were "skills-based" teachers who spent considerable time teaching through a structured, scripted program such as the SRA Mastery Reading which is heavily phonics based. According to the NRP report's meta-analysis (2000), systematic phonics instruction enhances children's success in learning to read, and systematic phonics instruction is significantly more effective than instruction that teaches little or no phonics (p. 4). While the report does not address when or for whom this manner of systematic phonics instruction is best, many of the studies reviewed for the report looked at low performing first graders (e.g., Brown & Felton, 1990; Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998; Tunmer & Hoover, 1993). Thus, the children in this group may have acquired phonics because they were developmentally ready for just such instruction and because it was provided for them. Heavy doses of phonics instruction just when students need it therefore seems appropriate, with qualifications we make below.

Blanket statements calling for more systematic phonics programs are misleading if consideration of children's development is not taken into account. Since no classroom contains identical children in the same stages of learning to read, imposing a systematic phonics program on all students in any classroom is potentially detrimental for students who already know phonics and could benefit from more practice reading or other language activities. In the present study we only looked at the lowest-performing students in each of these *reads little* classrooms. We do not know how all the other children fared with the scripted programs. Thus, we are not recommending scripted, code-emphasis programs for whole classes or schools. Instead, we recommend that attention be given to individual assessment of children's phonological knowledge and to consideration of the phonics instruction that matches student needs, which may or may not be a scripted phonics program.

This point is critically important due to the difficulty of research-to-policy and research-to-practice transitions. Too often, an influential study or review of studies incites educators to focus on the "sound bite" of a message or only one aspect of a message. For example, Adams (1990), in her summary of studies on the role of the code in beginning reading, makes strong recommendations for phonemic awareness and phonics instruction for young children. Subsequently, and possibly due to Adams' influential book, the use of commercial phonics programs dramatically increased in the last decade (Allington, 2002). But Adams also recommended the reading of good literature, and she never recommended using worksheets—aspects of her book that seem largely ignored.

At other times, however, researchers lead practitioners to inappropriate practices. For example, while many studies recommend explicit, systematic phonics for "some" children, others suggest "all" children need this. Foorman, Francis, Beeler, Winikates, & Fletcher (1997) in a large, influential study of early interventions for struggling readers, claim that explicit, systematic phonics instruction at the classroom level is more effective in reducing the occurrence of reading problems than are tutorials. This article, published in *Learning Disabilities: A Multidisciplinary Journal*, focused on children with specific phonological disabilities, but the authors recommend whole-class instruction. We see this as a problematic recommendation because in any given classroom not all children need the same intervention. So too, it seems, do the authors of the NRP report (2000), who direct teachers to pay attention to individual differences. For phonemic awareness, the report states that "…children will differ in their phonemic awareness and some will need more instruction than others" (p. 2-6), but then follow with "…in kindergarten, most children will be nonreaders and will have little phonemic awareness, so PA should benefit everyone." In the area of phonics, the report is less contradictory. The authors state, "Teachers should be able to assess the needs of the individual students and tailor instruction to meet specific needs. However, it is more common for phonics programs to present a fixed sequence of lessons scheduled from the

beginning to the end of the school year. In light of this, teachers need to be flexible in their phonics instruction in order to adapt it to individual student needs" (p. 1-6). Later, the report continues, "Children who have already developed phonics skills and can apply them appropriately in the reading process do not require the same level and intensity of phonics instruction provided to children at the initial phases of reading acquisition" (1-6). Based on the research literature, developmental theory, and our interpretations of children's development and the instruction they received, we recommend a careful consideration of the amount and kind of phonics instruction individual children receive.

Reading Time and Children's Development

There were no significant differences between the reading achievement of first graders in the *reads much* classrooms and the *reads little* classrooms across 1 year. During the first year of the study, the average gain score for first graders on the reading measure in the *reads little* classrooms ($M = 1.04$, $n = 44$) was not significantly different than the mean of the children in the *reads much* classrooms ($M = 1.00$, $n = 20$) in an independent samples t-test, $t(62) = .29$, $p > .05$.

Why is there no significant difference in reading achievement of first-grade struggling readers across the two categories of classrooms—those with much time for reading connected text and those with little time? Likely, this finding has to do with both children's development and the kind of reading practice (and other instruction) that is occurring in the classrooms. In first grade neither group of children was reading independently at the beginning of the school year, according to our measures. By the end of the year, just as the children in both groups were becoming adept at phonics, these children were likely going through a period of "cognitive re-organization" (Kamberelis & Sulzby, 1988) in which they were attempting to combine knowledge of phonology with semantic and syntactic cues in order to make sense of print.

During cognitive reorganization, assistance must be "mediated" (Vygotsky, 1978, p. 54) or provided by a more capable person (parent, teacher, peer) or through some kind of support or scaffold (Wood, Bruner, & Ross, 1976). These supports could include modeling, explanation, or joint participation (Tharp & Gallimore, 1993; Wertsch, 1986). The learners' responses are usually imitative of the entire process that is to be learned (Tharp & Gallimore). Eventually, through interaction with a more capable mediator, the child can be coached through questions, feedback, or other scaffolding to accomplish the task. Only assistance at this "interpersonal plane" (Tharp & Gallimore) will enable the learners to carry out the task at hand. Later, when the learner is able

to complete the task alone, the behaviors become internalized as Vygotsky, explains:

> The entire operation of mediated activity (for example, memorizing) begins to take place as a purely internal process…..We call the internal reconstruction of an external operation *internalization*" [italics his] (1978, p. 55–56)…
>
> What was initially done externally, is then done internally….an interpersonal process is transformed into an intrapersonal process (1978, p. 57).

The period of internalization, the second stage in the learner's zone of proximal development (ZPD) (Vygotsky, 1978) is a delicate period of "self-assistance" (Tharp & Gallimore, 1993) in which the child can perform the task through self-talk (e.g., subvocalization, reminders). Finally, after much practice, the learner becomes independent when the self-speech behaviors go underground, or become automatic. Vygotsky uses the term "fossilized" to indicate that the learning is permanent.

Theoretically, a sequence of instruction that coincides with a child's development through ZPDs follows: In the first stage, assistance is given first with the teacher doing the "work," and gradually with the child taking on more of the responsibility. For example, the teacher first reads a book aloud to a child, then the teacher reads it again and the child joins in by reading in choral fashion. Next, the teacher models *how* to read by explicitly decoding, phrasing, and visualizing certain parts of the text. Lastly, the teacher assists the child in reading the text aloud while the teacher provides coaching, questioning, and feedback for support. In the second stage of the ZPD, the child self-assists. The teacher provides time for independent practice, monitoring the reading by observing the student carefully while the reader uses self-speech to accomplish the task. If the child does not remain engaged, the teacher intervenes with strategies from Stage One. Finally, the child moves into Stage Three, when reading becomes fossilized, and the teacher only has to encourage reading and provide the texts.

The findings from this study suggest that the students may have been in Stage One of their ZPDs (Vygotsky, 1978) in which they needed assistance with reading (Moll & Greenberg, 1990), necessitating mediated types of reading practices. However, much of the reading time we observed in the *reads much* classrooms (except for that in classrooms 1 and 5 in Figure 1) was not mediated. We speculate that, at certain stages of development, children do not get better at reading through reading alone. We suggest that independent reading time, when students can't yet read much in the conventional sense, is

not as beneficial as other instructional activities for improving reading. Indeed, a close examination of the studies that have shown positive results for reading time either occurred in classrooms with older children, at least second grade and up (Dowhower, 1987), or the reading was mediated in some way. For example, in the Reitsma study (1988), the first-grade children who gained the most were either provided guided reading practice or independent reading with feedback.

It seems counterintuitive to recommend less independent reading time in school, especially when some studies of older students have shown positive benefits (Cline & Kretke, 1980; Marshall, 2002). Of course what actually occurs under the label of reading time matters. It may be that what students are doing during independent reading time is not really reading, especially for those who struggle, which is the population of children we studied. Therefore, just setting time aside for more reading clearly does not always help low achievers learn to read (Marshall, 2002). Instead, reading can be mediated (Wertsch, 1986) with a more proficient person available for assisted performance (Moll & Greenburg, 1990; Tharp & Gallimore, 1993; Vygotsky, 1978) in certain stages of development. This study supports the underlying theme of the need for teacher monitoring or feedback during reading time in the many studies we reviewed (Dowhower, 1987; Rasinski, 1990; Reitsma, 1988; Sindelar, Monda, & O'Shea, 1990; Taylor, Wade, & Yekovich, 1985).

Further, we do not recommend eliminating independent reading time from first-grade classrooms. For children who are in the "self-assistance" stage of the ZPD (Stage Three), there seems to be a need for independent reading time that is monitored for student engagement for the internalization of fluency and comprehension. As stated, when children can begin to perform a task on their own, practice is essential for fossilizing the skill (Vygotsky, 1978). The implications for instructional practice include that children's developmental stages must be taken into account when planning the amount of time that will be provided for reading connected text.

This development-instruction relationship is complex, and we believe this complexity should be highlighted. It may be that time spent reading is not any more or less beneficial than doing skill work for emergent and beginning readers. Stanovich (1986) posed the question of whether increased self-esteem, time spent reading, or positive attitudes towards books increase reading achievement, or whether increased reading skill precedes improved self-esteem, positive attitudes, and volume reading. Reading skill might be nurtured with more attention given to matching appropriate practices (e.g., more phonics instruction or more mediated reading time) with children's developmental levels of reading acquisition.

LIMITATIONS

This study, as do all, has some limitations. The type of classroom study presented includes a risk of contextual constraints. We believe that our decision to test children individually and to follow them as individuals reveals substantially more valid findings than group administered paper and pencil tests. Yet, we recognize that literacy practices outside of school, the education level of parents, the general abilities of the individual children and other socioeconomic/cultural variables also affect achievement (Lareau, 2000; Miller, 1996; Hart & Risely, 1995). While our longitudinal design and ethnographic techniques were designed to address some of these research constraints, more studies of this sort are needed to understand patterns of early reading achievement.

A second limitation comes from one of the strengths of the design of this study. Because the variable we studied—opportunities to read connected text—was determined through the qualitative analyses first, we were not able to structure the study to include an equal number of children in the *reads much* and *reads little* classrooms. We also did not separate the time spent in independent reading and time spent in mediated reading (such as guided reading, choral reading). We believe this could account for some of the differences, lack of differences, and trends. Finally, we did not specifically look at the additional benefits of these two types of classrooms. For example, we did not look at children's attitudes toward reading and their subsequent motivation for reading based on the instructional actions. Given these limitations, however, the issues raised in this article are essential for understanding the relationship between classroom instructional practices and children's early literacy development.

CONCLUSION

In this article we comment on phonics instruction based on our study, previous studies, and Vygotskian developmental theory. While our study has shown significant improvement in phonics skill by the children in the *reads little* classrooms (which had a heavy phonics focus), we remind readers that these children were first-grade struggling readers who were developmentally ripe for phonics instruction. As a group, it seems that this teaching came at the appropriate time in their development. Children learn what they are taught, and therefore, children in these classrooms learned phonics. Thus, we advocate some form of phonics daily for those students who require it at their development stage, and as part of an overall plan of instruction. We suggest that systematic, explicit phonics instruction be included in the daily instruction for children with little or no phonological knowledge. Equal time should be spent in other language activities as well, such as exploring and re-enacting books,

listening to books read aloud, and responding to books through dialogue and other activities. As children acquire some phonological knowledge, they may be gradually assisted with applying this knowledge to reading and writing. The role of explicit instruction in phonics is well supported in terms of its success in helping most children learn phonics. However, it is only appropriate for some children at certain stages of their development.

We also argue for a reconsideration of independent reading time in first-grade classrooms, or in any group serving beginning readers. This does not mean we believe the practice should be eliminated: To even suggest that limiting opportunities for reading connected text may be beneficial for first graders is risky, despite the assertions previously made. First, we have not addressed what *else* children learn when given the opportunity to explore books on their own or with peers in a less-controlled environment. A few benefits of independent reading time include (a) the potential development of positive reading habits and a love for books, (b) the construction of understanding the variety of texts available, (c) the discovery of a book that is *just right* for a particular child, and (d) the various ways people read (e.g., browsing, reviewing). We are well aware of the potential benefits of having emergent readers just spend time with books. We also know that re-enacting books is a natural part of literacy development (Sulzby, 1985), and that children who gain a "written register" (Purcell-Gates, 1988) prior to learning to read acquire a deep level of understanding of text grammar and vocabulary found in books. Thus, we present these findings with much hesitance.

Finally, we argue that in the earliest stages of beginning reading, time spent reading must be mediated by the classroom teacher, such as through repeated readings, choral or echo reading, paired reading, or assisted oral reading. These strategies can be balanced with explicit instruction on *how* to read (e.g., decode and comprehend) in lessons conducted in small groups where teachers can monitor progress and provide feedback. This kind of teaching is not easy, but it is necessary for those who struggle with reading in the early grades.

Additionally, the close monitoring of independent reading time when it is implemented in primary-grade classrooms can ensure that students really are reading. We suspect that if children are not reading during independent reading time it is not because they don't like to read, have illiterate parents, are scoundrels, or are unmotivated. It is more likely because the tasks they are attempting to do are not in their stage of ZPD where they can operate without assistance. We believe that all children want to read, but finding just the right text and just the right mediation appropriate for the individual child is the challenge that faces teachers.

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