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16 Minutes of “Eyes-on-Text” Can Make a Difference: Whole-Class Choral Reading as an Adolescent Fluency Strategy

David D. Paige, Ed.D., Bellarmine University

Assisted Reading with Digital Audiobooks for Students with Reading Disabilities

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Promoting At-Risk Preschool Children’s Comprehension through Research-Based Strategy Instruction

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Grade Level and Gender Differences in a School-Based Reading Tutoring Program

Sau Hou Chang, Ph.D., Indiana University Southeast

Bullies in Recent Books for Children and Young Adults

Terrell A. Young, Ed.D., and Barbara A. Ward, Ph.D., Washington State University
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From the Editor

I’m sitting at my desk and when I look up just a bit I see five shelves of books that help me better understand my profession as a literacy specialist. Names like Au, Tatum, Beers, Romano, Glasgow, Burke, Reutzel, Conley, Wilhelm, Dewey, Vacca, and Daniels appear on the many spines. Looking to my right there are multiple shelves of other books, mostly novels and many of those young adult literature written by Collins, Cormier, Crutcher, Gaiman, Giles, Volponi, Stratton, Zuzak, Flake, Clare, and Card. Then there are the shelves of picture books, mostly non-fiction written by Giovanni, Yolen, Bang, Bridges, Krull, and Tang. I am surrounded by books of all kinds and I feel a sense of security; these names and texts are well known to me. I have spent serious face time with most of these books and those I don’t know yet are on my long TO READ list.

Personally, I still like to read traditional bound books as I love to hold the book, feel the pages, and hear the sound of the page turning. When I drive long distances I frequently take along a book on CD and enjoy being read to as the miles quickly pass. A colleague of mine constantly has ear buds on as he listens to books on his MP3 player. He is an avid reader, enjoying the many books he downloads from Audible.com. His wife, on the other hand, is an equally avid reader and downloads books onto her Kindle. Three devoted readers entering and experiencing texts in three different ways. Technology has opened up multiple pathways to the written word, ultimately affording us multiple opportunities to read.

This issue of Reading Horizons contains research on some of the many ways people of all ages experience texts. David Paige studied the effect of Whole Class Choral Reading (WCCR) on a group of sixth grade students. The students read out loud as a class, increasing their eyes-on-text time by a mere 16 minutes per week and that increased their oral fluency and phonological decoding skills. A side benefit of the activity was that the students began to feel more comfortable reading aloud as they had the safety net of each other and the teacher and the attention was not solely focused on the individual.

Kelli Estevez and Elizabeth Whitten compared the efficacy of assisted reading using digital audiobooks with more traditional book reading during Sustained Silent Reading (SSR). All participants had Individualized Educational Plans (IEP) and were allowed to choose what book they wanted to read but some had it loaded onto an iPod or MP3 player and listened to as well as read while others just read the book. While all
of the students had gains in their reading fluency as measured by words read correct per minute, the audiobook group had significantly larger gains.

Andrea DeBruin-Parecki and Kathryn Squibb challenge readers to think deeply about the reading needs of prekindergarten children, in particular how to teach them comprehension skills such as predicting and making connections. Their study included teachers reading books out loud to their young students and specifically teaching comprehension strategies that went well beyond the constrained skills of alphabetic principle, phonemic awareness, and concepts about print.

Sau Hou Chang focused on reading gains as a result of participating in a school-based tutoring program. This study specifically looks at the gender and grade level differences in reading gain of first and second grade tutored students compared to those not in the tutoring program. Young readers were engaged in a variety of reading materials in both the tutoring program and the classroom.

Understanding how bullies are portrayed through many different media, Barbara Ward and Terry Young present us with a review of some of the latest books about bullies. From the Three Bully Goats Gruff who bully a gentle ogre protecting the grassy meadow, to Cuban refugee children left in America after the 1961 Pedro Pan Airlift and who were bullied in the refugee camps near Miami, FL; these books show that bullies come in many forms and can have horrid affects on the victims.

Having read these articles repeatedly and being immersed in the thinking of such relevant research, I find myself needing to find more books to add to my ever-growing collection. What other research is out there about early/emergent reading comprehension and audiobooks? What else might I read about choral reading and tutoring programs? And how can I ever read all these books about bullies? I might need to follow my colleague’s example and download books onto my iPhone just to keep up.

Allison L. Baer, Ph.D.
Editor, *Reading Horizons*
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16 Minutes of “Eyes-on-Text” Can Make a Difference: Whole-Class Choral Reading as an Adolescent Fluency Strategy

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Abstract
Research continues to suggest that adolescents struggle with reading, indicating that much work remains to ensure that all students read at levels consistent with the skills required for academic achievement (Biancarosa & Snow, 2006). This article investigates whole-class choral reading (WCCR) within the context of a sixth-grade language arts setting for the purpose of improving oral reading fluency skills with narrative text. In this quasi-experimental study involving 112 students, WCCR was implemented on a daily basis with students utilizing the repeated reading of narrative text. Results suggest that students improved both phonological decoding and oral reading fluency skills with moderate effect sizes. Implications for teaching are discussed.

Introduction
In addition to the growing interest in oral reading fluency, attention has recently focused on the subject of adolescent literacy achievement and instruction (Cassidy & Cassidy, 2009/2010). Reading Next (Biancarosa & Snow, 2006), a document proposing the elements of effective adolescent literacy instruction, has been prepared to address recent evidence that close to three-fourths of twelfth graders are unable to adequately access grade-level texts (National Center for Education Statistics, 2009). It is precisely during middle school that students must be “flu-ent in recognizing words, and their vocabulary and knowledge needs to expand, as does their ability to think critically and broadly” (Chall & Jacobs, 2003, p. 14). Unfortunately, too many adolescents still struggle with overall reading fluency and
are therefore disadvantaged in the process of applying the increasingly sophisticated comprehension skills that complex text requires (Rasinski & Padak, 2005; Rasinski et al., 2005). Recent research has demonstrated that oral reading fluency accounts for half of the variance in reading comprehension, while the ability to comprehend text is responsible for over 80% of the variance in academic achievement (Paige, in press). This suggests that more attention should be directed to instructional strategies for use in later elementary, middle, and high school settings that focus on the development of appropriate oral reading fluency to ensure that all students are progressing along a continuum leading to competence with increasingly difficult texts in order to maximize the potential for effective comprehension processing (Snow, Martin, & Berman, 2008). This study examines one such instructional strategy: the application of whole-class choral reading (WCCR) using the repeated-reading of narrative text situated within language arts classrooms in a middle school setting.

Automaticity and Fluency

The ability to fluently read text is highly dependent on a reader’s ability to quickly recognize a large inventory of words that have been learned to the point where retrieval is automatic. Being automatic means the reader does not consciously apply phonological decoding principles (Compton, Appleton, & Hosp, 2004; LaBerge & Samuels, 1974; Torgesen, 1999; Torgesen & Hudson, 2006). While automaticity is hypothesized to aid in the creation of meaning from text by freeing attention from decoding activities (LaBerge & Samuels, 1974), it is important to recognize that automaticity is not an overall characteristic of the reader, but rather the reader becomes automatic with specific words (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001). However, even the most fluid of readers may occasionally encounter a word that must be purposefully decoded because it is not in the reader’s store of automatic words (Torgeson & Hudson, 2006). Ultimate attainment of automaticity is created through practice with orthographic representations where words previously in the reader’s functional inventory are transferred fairly quickly to an autonomous sightword inventory (Anderson, 1992; Jorm & Share, 1983; Perfetti, 1992; Rayner et al., 2001; Share, 1995).

In recent research, Klauda & Guthrie (2008) suggest that readers who demonstrate the highest levels of reading comprehension fluently process text on three distinct levels. At the first level, readers have large and fast sightword inventories similar to what has been proposed by previous researchers (Jenkins, Fuchs, Espin, van den Broek, & Deno, 2000; Torgesen, Rashotte, & Alexander, 2001). On a second level, readers are able to read aloud phrases as whole syntactic units, while on a third
level readers with the best comprehension read both narrative and expository text with appropriate prosody. Some suggest that additional variance in reading comprehension attributable to oral reading fluency exists beyond that found at the word level (De Jong & van der Leij, 2002; Rayner et al., 2001; Reichle & Perfetti, 2003; Schwanenflugel, Hamilton, Kuhn, Wisenbaker, & Stahl, 2004) and can be explained by automaticity with text at these second and third levels. These results suggest that oral reading fluency may be viewed on a developmental continuum that spans not only words and phrases, but also genres and readability of text. The role of prosody, or reading with expression (Schreiber & Read, 1980), is included in many definitions of oral reading fluency and is viewed as a developmental trait of an accomplished reader (Mathson, Allington, & Solic, 2006; Pikulski & Chard, 2005; Rasinski, 2004; Walker, Mokhtari, & Sargent, 2006). The construct of oral reading fluency used in this study embraces the idea of deep processing of text by the reader and does not imply a race to the finish where the fastest reader wins (Rasinski, 2004).

Repeated Reading Strategies

The use of repeated-reading strategies has been widely investigated since Samuels (1979) introduced the strategy as a method to improve oral reading fluency and word recognition automaticity through practice (Dowhower, 1987; Faulkner & Levy, 1994; Homan, Klesius, & Hite, 1993; Koskinen & Blum, 1986; O’Shea, Sindelar, & O’Shea, 1985; Paige, 2006; Rasinski, 1990; Young, Bowers, & MacKinnon, 1996). In their review of the results of repeated-reading studies, Kuhn & Stahl (2003) found this strategy implemented for students from the first grade through college with the majority of studies being conducted between the second and sixth grades. Text selections were primarily narrative in nature with some studies using grade-level text and others utilizing text that was above grade-level. Implementation of repeated-reading typically involves the student reading a single passage a set number of times that ranges between three and five (Kuhn & Stahl, 2003; O’Shea, Sindelar, & O’Shea, 1985). The National Reading Panel (NRP, 2000) found effect sizes for repeated reading strategies to average 0.44 on measures of oral reading fluency.

Whole-Class Strategies

Research into the use of WCCR is sparse at best, however, Rasinski, Padak, Linek, and Sturtevant (1994) investigated a strategy called the fluency development lesson (FDL) in a fourth-grade setting that utilized WCCR. The study involved 54 students with teachers that employed six principles for effective fluency instruction (Rasinski, 1989). These principles are (a) the modeling of fluent reading,
(b) providing corrective feedback to students, (c) providing reader support while reading such as in choral reading or reading-while-listening, (d) the use of repeated readings, (e) cuing the students regarding phrasing boundaries in text, and (f) practice using independent level text. FDL, a 15-minute lesson that includes the modeling of fluent reading by the teacher, whole-class reading of text, and the paired-reading of text by students resulted in significant progress in reading rate after several months of treatment with effect sizes ranging from .133 to .962. The purpose of the present study is to investigate the implementation of WCCR using narrative text in a repeated-reading format as a strategy to improve oral reading fluency in struggling sixth grade readers.

**Research Questions**

This study addressed the following research questions:

1. Does the use of repeated-reading WCCR using narrative text improve oral reading fluency in sixth-grade readers?
2. What effect does the use of WCCR have on word reading in sixth-grade readers?
3. What are teacher perceptions of WCCR?
4. What do students think about WCCR?

**Method**

**Participants**

Participants were 112 sixth-grade students who attended a middle school within a large southeastern public school district with ages ranging between 10 years, 10 months to 12 years, 7 months ($M = 11$ years, 6 months, $SD = .40$). Of the total sixth-grade population ($n = 391$ students), 348 (89.0%) were African American, 27 (7%) were Hispanic, 8 (2%) were European American, and 8 (2%) were Asian American. Approximately 43% of the children attending this school qualified for free or reduced-price lunch.

**Group Assignment**

Informed parental consent was provided by 231 of the 392 students (59%) enrolled in the sixth grade. Four teachers provided reading instruction to all sixth graders enrolled in the regular educational curriculum. These four teachers and all their respective classes were randomly assigned to either the treatment or control condition. From the students who provided informed parental consent who were
in classes taught by the two teachers assigned to the WCCR condition, 60 were randomly selected as study participants in the treatment condition. Likewise, 60 students from classes instructed by the two teachers in the control condition were selected as study participants. By the time of post testing, subject attrition resulted in 54 (48.2%) students in the WCCR group and 58 (51.8%) students in the control group (n = 112). From the total participant sample, seven (6.25%) students had a current Individual Educational Plan (IEP) and of that total, three were diagnosed with mild reading disabilities and four received services for the academically gifted.

**Materials and Procedures**

**Reading Assessments**

To address the research questions, two types of oral reading were evaluated. The first measured the ability of the reader to read isolated real- and pseudo-words, reflecting knowledge of the alphabetic principle and the depth of the reader’s sight-word inventory. The second measured the student’s ability to orally read connected narrative text, resulting in the measure of oral reading fluency.

*Test of Word Reading Efficiency.* The Test of Word Reading Efficiency [Torgesen, Wagner, & Rashotte, 1999; (TOWRE)], is composed of two subtests, Sight Word Efficiency (SWE) and Phonemic Decoding Efficiency (PDE) subtests. Form A was used for pretesting while Form B was used in posttesting. Both subtests ask the reader to read aloud as many words of increasing complexity as quickly as possible in 45 seconds. Test-retest reliability between Forms A and B of the TOWRE for the age group studied equals or exceeds .91 as reported by the test authors.

*Gray Oral Reading Test.* The Gray Oral Reading Test—Fourth Edition (Wiederholt & Bryant, 2001; [GORT-4]) assesses the student’s ability to read connected text through a series of 14 increasingly difficult narrative passages that are read aloud by the student. While listening to the student read aloud, the examiner notes deviations from the text and the time taken to read each passage to arrive at the measure of fluency (FL). Reported reliability coefficients between forms A and B range between .88 and .97 for the age group assessed in this study.

**Teacher Training**

Two training sessions were held for the two teachers who taught classes in the treatment condition. The first session provided an overview of adolescent oral reading development followed by training in the procedures for implementing WCCR in the classroom. The second session held three days later was designed to reinforce WCCR implementation steps through researcher modeling. Teachers were also trained in a version of WCCR that included echo reading, where the teacher reads
aloud a line of text followed by the whole class reading aloud the same line, and antiphonal reading where the class is divided into two groups who then take turns reading the text back and forth until the passage is completed.

On the first day of strategy implementation, the researcher joined each teacher in her classroom and modeled the WCCR strategy for the teacher with her first treatment class. During each teacher’s second treatment class, the researcher observed the teacher conducting the whole-class choral reading strategy. At the conclusion of class, the teacher and researcher consulted to review results of the implementation.

**Strategy Implementation**

Six passages, one for each week of the six-week WCCR treatment period, were chosen from the district literature textbook for sixth grade in close consultation with the two classroom reading teachers with each passage consisting of approximately 300 words. These passages were specifically chosen as the district and classroom expectation is that students should be able to fluently read material from the district-issued text, an expectation which these teachers felt was not being met. The participating classroom teachers shared their opinions with the researcher that the chosen passages were representative of narrative reading expectations in their classroom and school. It is believed by this author that experienced teacher input should be considered by researchers to aid in the ultimate usability of research by classroom practitioners. Passage reading levels on the Flesch-Kincaid reading scale (Flesch, 1951) as measured by the Coh-Metrix on-line tool (Graesser, McNamara, Louwerse, & Cai, 2004) ranged between 5.5 and 7.6 with a mean of 6.6 ($SD = .89$).

The steps used for implementation of WCCR are listed in Appendix A. After distributing the reading material and reviewing words anticipated to be difficult, teachers briefly discussed the passage to activate prior knowledge as an aid to comprehension. Teachers then modeled reading the passage aloud, paying particular attention to pronunciation, reading rate, prosody, and phrasing while students read along silently. When finished reading, teachers reviewed any words that the students wished to have pronounced. Teachers then began the class reading on cue by counting down aloud “three-two-one” after which all students would begin reading aloud in unison, that is, with one voice. While reading aloud so that all in the class could hear, teachers simultaneously listened for words and phrases that students had difficulty pronouncing. Teachers were cognizant to maintain appropriate reading rate and prosody while reading aloud. Once the reading was completed, teachers again reviewed difficult words and phrases in order to reinforce appropriate pronunciation. On Monday, the passage was read aloud twice by students to
reinforce appropriate pronunciation, prosody, and rate. After the second reading, a brief discussion of the text took place to aid in comprehension. On Tuesday and Wednesday, teachers reviewed word pronunciation as necessary both before and after implementation of WCCR. Also on these days only one reading of the text was conducted. On Thursday and Friday, teachers employed one whole-class reading using either echo or antiphonal reading as a strategy to maintain interest and to build upon student familiarity and mastery with the text.

**Treatment Fidelity**

Throughout the six-week treatment period, procedural integrity checks using direct observation of 22 implementations of WCCR were conducted in order to assess the degree to which fidelity was maintained as described in the pre-intervention treatment sessions with teachers. Using a 3-point Likert scale ranging from 1 (low fidelity) to 2 (moderate fidelity) to 3 (high fidelity), two trained observers assessed four teacher and four student attributes pertinent to the implementation of WCCR strategy. Four additional teacher attributes were rated as either observed or not observed. The teacher attributes rated were the modeling of fluent reading before the initial whole-class reading on Monday, as well as the use of appropriate reading rate, pronunciation, and prosody. Additional behaviors noted as observed or not observed were conducting two whole-class readings on Monday, providing prereading instructions to the class regarding attention to items such as the prosodic elements of the text and reading with one voice, and beginning the class reading with a “three-two-one” countdown. Student attributes were observed during the whole-class reading of the passage and a determination was made as to how well the class performed regarding the use of appropriate reading rate, correct pronunciation, reading with prosody, and reading in unison. Cohen’s kappa (1960) indicated an intercoder reliability of .96 on classroom observations.

**Dosing**

Dosing (Dressman, 1999; Juel & Minden-Cupp, 2000) can be viewed as the quantity of input of the independent variable, in this case WCCR. Dosing was tracked as part of the data collected during classroom observations for treatment fidelity. Throughout the six weeks of treatment, the average amount of time per week students spent actively reading text aloud through WCCR was 16 minutes. While complete daily implementation of WCCR intervention took longer, the actual input that is most critical to potential reading improvement is the length of time actually spent reading by students, not the various procedural elements of treatment administration.
Control group strategies

Two reading teachers and their classes were assigned to the control condition. Reading strategies were not assigned to these teachers as part of the study, and as such, they implemented the reading curriculum per their normally planned instruction. Interviews with both teachers prior to treatment indicated that neither planned to implement WCCR in their classes. In order to assess the specific strategies that were implemented, two trained observers spent one day per week in each class to note implemented reading strategies for a total of 12 observations. Observation days were rotated so that all five days of the week were observed with Tuesday being observed twice by the observation team. An observation checklist was used by each observer that allowed for the recording of observed fluency strategies with implementation time noted in minutes. Additionally, the observer rated the level of implementation on a 3-point Likert scale as poor, proficient, or exemplary. In control classroom one, four strategies were observed over the six observation days consisting of independent silent reading, popcorn reading, reader’s theatre, and paired reading. Implementation time for all observed strategies averaged 14 minutes per day. For silent and popcorn reading (a version of round-robin reading), implementation was rated as poor, while for reader’s theatre and paired-reading implementation was proficient.

Control classroom two used three strategies over the observation days that consisted of paired reading, recorded reading using audio CDs, and popcorn reading. The average time spent on these strategies during each day observed was 17 minutes. Implementation levels varied from proficient for paired reading, to poor for recorded reading due to students who were off-task, to proficient for popcorn reading. Students took four to five minutes to eventually become organized and settle into paired reading. Popcorn reading was the most organized as it involved the highest degree of teacher oversight throughout the strategy. Recorded reading using audio CDs was poorly implemented as several students had to share books and several others engaged in various forms of disruption. After each observation the two observers reviewed their coding in order to resolve any divergence. Cohen’s kappa (1960) indicated an intercoder reliability of .89 for these classroom observations.

Results

Means and standard deviations for the dependent variables are listed in Table 1. Bivariate correlations between the three dependent variables are listed in Table 2 and all were significant at $p < .01$. Correlations between the three variables exceeded .68, suggesting that PDE, SWE, and FL are highly related. Results by treatment group are shown in Table 3.
Table 1. Pre- and Posttest Descriptive Statistics by Reader Group

<table>
<thead>
<tr>
<th>Measure</th>
<th>All Students (n = 112)</th>
<th>Treatment (n = 54)</th>
<th>Control (n = 58)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest M(SD)</td>
<td>Posttest M(SD)</td>
<td>Pretest M(SD)</td>
</tr>
<tr>
<td>PDE</td>
<td>98.1(13.6)</td>
<td>98.2(14.3)</td>
<td>99.9(13.6)</td>
</tr>
<tr>
<td>SWE</td>
<td>99.1(11.5)</td>
<td>97.9(10.4)</td>
<td>100.6(12.7)</td>
</tr>
<tr>
<td>FL</td>
<td>8.6(3.3)</td>
<td>9.6(3.4)</td>
<td>9.6(3.6)</td>
</tr>
</tbody>
</table>

Note: PDE = phonological decoding efficiency; SWE = sightword efficiency; FL = oral reading fluency

Table 2. Intercorrelations of the Observed Variables

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PDE</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 SWE</td>
<td>.727*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3 FL</td>
<td>.737*</td>
<td>.686*</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>98.1</td>
<td>99.1</td>
<td>8.9</td>
</tr>
<tr>
<td>SD</td>
<td>13.6</td>
<td>11.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>

PDE = phonological decoding efficiency; SWE = sightword decoding efficiency; FL = fluency; All coefficients are significant at \( p < .01 \).

Table 3. Multivariate and Univariate Analyses of Variance F Ratios for the Dependent Variables by Group

<table>
<thead>
<tr>
<th>Source</th>
<th>MANOVA</th>
<th>PDE</th>
<th>SWE</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readers F (df)</td>
<td>( \mathcal{F} )(3,108)</td>
<td>( \mathcal{F} )(1,110)</td>
<td>( \mathcal{F} )(1,110)</td>
<td>( \mathcal{F} )(1,110)</td>
</tr>
<tr>
<td>Treatment Group (T)</td>
<td>3.87*</td>
<td>7.64*</td>
<td>.03</td>
<td>7.79**</td>
</tr>
<tr>
<td>MSE (d)</td>
<td>(.38)</td>
<td>19.04(.50)</td>
<td>24.71</td>
<td>1.44(.64)</td>
</tr>
</tbody>
</table>

Note: \( F \) ratios are Wilk’s approximation of Fs. MANOVA = multivariate analysis of variance. PDE = phonological decoding efficiency; SWE = sightword efficiency; FL = fluency.

\*\( p < .05 \). **\( p < .01 \)
To assess the dependent variables for pretreatment group equivalence, an analysis of variance (ANOVA) utilizing a Bonferroni adjustment to control for Type I error was conducted and found to be nonsignificant for all three variables (Stevens, 2009). To assess potential changes to the three dependent variables due to WCCR, a two-step design was conducted where a 2 (group) x 2 (trial) MANOVA was conducted on the pre- and posttest measures to assess overall changes between the treatment and control groups. Following a significant MANOVA test, a follow-up univariate analysis was conducted to determine on which dependent measures change occurred. Effect sizes using Cohen’s $d$ (1988) from $F$-tests are computed and reported when the corresponding $F$-statistic is significant. Nomenclature for interpretation of effect size for $F$ is adopted where a small effect equals .1 - .3, moderate effects are between .31 and .79, while large effects exceed .79.

A significant MANOVA for WCCR was found, $F(3, 108) = 3.87, p < .05, d = .38$ (medium effect) suggesting that changes occurred within the dependent variables. Univariate results indicate that those in the treatment group made significant gains on PDE, $F(1,110) = 7.64, p < .05, d = .50$ (moderate effect), reflecting an improved ability to decode words. On the measure of oral reading fluency, students in the treatment group made significant gains FL, $F(1,110) = 7.79, p < .01, d = .64$ (moderate effect), suggesting that they had improved in their ability to fluently read aloud connected text.

**Teacher Perceptions**

To explore teacher perceptions regarding WCCR, Ms. Merton and Ms. Castle (pseudonyms), the two reading teachers who implemented WCCR within the treatment condition were interviewed. Both teachers reported that WCCR was well received by their students. Ms. Merton commented that “When we started, around Wednesday, the students moaned a little bit, but after we got into the groove of it, they really enjoyed it.” Ms. Castle added that “My students did the same thing and even after it was over, the kids asked me why we didn’t have anything more to read.” Regarding implementation of WCCR Ms. Merton said that “I really enjoyed it and I think it motivated the students” while Ms. Castle added that “it was really easy.”

Ms. Castle also reported that she felt that WCCR helped her students in learning to read text containing unfamiliar syntax:

They would stumble over a combination of words that were difficult for them to read. If you took the words out individually they could pronounce them, but it was the words in that specific context and order that they kind of stumbled over and they wouldn’t read them
fluently, it was just kind of mumbled. By Friday you could hear the class reading words more fluently that they stumbled with on Monday.

Both teachers noticed increases in prosodic reading (Rasinski, 2004; Schreiber, 1980, 1991) by their students that they attributed to WCCR. Ms. Merton said that her students became “Much better at expressing what they were reading rather than just calling words.” She went on to explain how important expressive modeling of reading text was in developing prosody in her students:

Sometimes they would just read the words, so I tried very hard to model expressive reading and would almost be over-animated when I would read it. I would tell them to echo me and emulate the way I’m reading this to you.

Ms. Merton added that her students were “picking up not only the pronunciation of the word and syntax, but also getting expression and feeling.”

Finally, both teachers addressed how they used the Gradual Release of Responsibility model (Pearson, 1985; Pearson & Gallagher, 1983) with the WCCR strategy. Ms. Castle said that she would “Withdraw my oral reading support by speaking more softly and allowing the class to carry the reading on their own.” Ms. Merton agreed saying, “I would draw back my support as the class was able to read the passage on their own.” Ms. Merton concluded the interview by saying that “I thought the strategy was great. I learned a lot from it and I would definitely, definitely use it from now on.”

Student perceptions

A post treatment focus panel consisting of five students randomly chosen from the treatment group was interviewed in order to evaluate student reaction to WCCR. Of these five students (all names are pseudonyms), Katheryn was a proficient reader while Tiara, Kendrick, Jamal, and Chris all struggled with reading, although none had been diagnosed with a reading disability. These students were asked to discuss the following prompts:

1. How did the daily choral readings affect you as a reader?

2. What is your perspective on practicing reading by participating in choral reading?

Responses to the first question were varied. For example, Katheryn stated that she thought that choral reading “Was fun” because she enjoyed reading and read often at home. Chris commented that when choral reading first began, he “Didn’t like it” and “Didn’t want anyone to hear me reading.” Kendrick agreed with this comment and stated that he “Read low” so as not to be heard by other students.
On the other hand, Tiara commented that “It didn’t really matter if you didn’t like reading, we were part of the class so we kind of had to do it.” Both Chris and Kendrick agreed with her statement. Jamal, who remained quiet until queried by the researcher, added the perspective that some teachers that he had in earlier grades would have them read aloud in class. He added that WCCR was “Okay” because he “Didn’t have to read in front of the whole class” and that some of the stories were “Alright.”

The second question asked these students what they thought about practicing reading through WCCR. While by this time the group had gotten more comfortable with the interview, this question seemed to puzzle the students. Tiara broke the ice when she said that she never thought about “Practicing reading” but that “When I think about it, I guess that’s what we were doing.” Chris followed up by saying that although he “Didn’t want to do it at first,” he could tell that he “Got better at reading the story,” especially “Near the end of the week.” On the idea of practice, Jamal volunteered that “I could tell that I got better around Wednesday or Thursday.” Katheryn observed that she could “Hear the class come together” and that “Kids around me started reading a little louder.” Kendrick suggested that he “Realized that no one was really paying attention to me” and so he felt like “I could read and not worry about what other kids thought about me.” Kendrick also liked the way he could “Hear the teacher reading” because it helped him with some words that he didn’t know. Katheryn ended the conversation with an insight about her teacher, Ms. Castle: “She was good at getting us to read together.”

**Discussion**

The purpose of this study was to examine the effects of WCCR on sixth-grade students within the context of the language arts classroom. Study results suggest that readers benefited from WCCR when using a repetitive-text strategy through improvement in both the underlying phonological decoding process and in oral reading fluency with moderate effect sizes. Teachers reported that implementation of WCCR was simple and that students generally appeared to enjoy participating and that they observed a noticeable improvement on the part of students in both prosodic reading and in the ability to read text containing unfamiliar syntactic structures. Overall, teachers thought that WCCR was an effective strategy that helped improve oral reading in their students. While some students suggested an initial reluctance to participate in WCCR, they thought that practicing reading seemed to pay off with improved reading. Student interviews suggest that WCCR may provide some degree of psychological cover for struggling readers in that the whole-group
aspect of WCCR appears to provide a sort of tent of anonymity, meaning students were free from potential peer ridicule of their poor oral reading skill because no student was ever singled out. This aspect may allow students the freedom to practice reading aloud within WCCR without suffering a loss of self-esteem.

While readers improved in applying the phonological code, they did not expand their sightword inventory. One possible explanation for this outcome could be that this implementation of WCCR made use of repetitive text where one passage was used per week. A wide-reading strategy that employed a different text each day may have expanded the total number of unique words read by the student and resulted in increases in sight word efficiency (SWE). In sum, the findings of this study suggest the efficacy of WCCR with narrative text as a strategy to improve oral reading proficiency in sixth-grade students. Finally, this study specifically documents the effects of eyes-on-text input consisting of 16 minutes of WCCR dosing per week resulting in significant phonological decoding and fluency gains for these sixth-grade students.

Chall’s (1996) stage three, that of confirmation and fluency, suggests that reading practice is required by students to become unglued from the decoding process. Other researchers also suggest that practice is a prerequisite for children to become better readers (Adams, 1990; LaBerge & Samuels, 1974; Logan, 1988) and WCCR provides monitored practice to assist students in this process. While the idea of time-with-text is pertinent to the ungluing process due to the reciprocal relationship between phonological knowledge and reading practice, where one strengthens or otherwise improves the other (Perfetti, Beck, Bell, & Hughes, 1987), the question remains as to the amount of practice required for such changes to occur. Along this line, Anderson, Wilson, and Fielding (1988) report that readers at the 20th percentile spend about 3.1 minutes per day reading while students at the 50th percentile spend about 12.9 minutes. Within the present study, all students in the treatment group spent an additional 16 minutes per week with eyes-on-text. If the results reported by Anderson et al. (1988) are even approximate, WCCR increased the time that readers spent with eyes-on-text. The 16 minute-per-week input in this study resulted in an output of moderate gains for decoding knowledge and oral reading fluency. The question must then be asked that if the duration of treatment were increased from 16 minutes per week to a significantly greater amount such as 25 minutes per week or more, how would decoding indicators change? For example, what would be the result if WCCR and other known effective oral reading fluency strategies were employed with efficacy in two, or even three content classes over the course of a school year that effectively doubled or tripled the dosing input? This is a question for future research.
Teaching Implications

WCCR was found to be easily implemented by teachers. Classroom observations suggest that teachers implementing the strategy paid close attention to modeling appropriate oral reading, both when introducing a passage and during the whole-class reading of the text. Teacher modeling during WCCR is important as it provides students an immediate expert model for correctly pronouncing unknown or difficult words, appropriate rate, and prosody. Beyond the word level, modeling aloud may also assist students in the reading of whole syntactic units, a characteristic of fluent readers (Klauda & Guthrie, 2008). An area that teachers may wish to pay particular attention to is the motivational effect that encouraging comments from the teacher may have on students. This element of teacher motivation and enthusiasm, while difficult to measure in the classroom, should be recognized as potentially adding to the overall motivational atmosphere that may contribute to student success with WCCR.

While this study employed only the repeated-reading of narrative text within WCCR, teachers may consider expanding this strategy to other text genres, to extending the amount of practice time, and to incorporating a wide-reading strategy. One advantage of WCCR is its adaptability to various texts and genres (Paige, 2008). For example, within a content classroom such as science, a trade book closely aligned with the curriculum could be introduced and read aloud using WCCR by simply displaying the text through the use of an overhead projector. Daily or frequent readings of the book on a nonrepetitive basis, meaning the book is read in a consecutive, page-by-page manner, enables the teacher to expand and deepen student content knowledge while improving oral reading fluency with expository text. The concept of using WCCR for distributed practice across content classes is a possible strategy to increase student time-with-text, deepen content knowledge, and contribute to reading growth on a school-wide basis.

Study Limitations

Results of the present study should be considered in light of several inherent limitations. The four sixth-grade reading teachers within the study school were randomly assigned to one of the two experimental conditions. However, due to this small number of teachers, it is possible that a potential teacher effect could impact results either positively or negatively. Secondly, while teachers and their respective classes were randomly assigned to treatment conditions, students were not so assigned, leaving open the possibility for violations of internal validity.
Future Research

The major finding of this study was that daily implementation of WCCR for 16 minutes per week of eyes-on-text oral reading resulted in increases in decoding knowledge and oral reading fluency. This dosing of oral reading is similar to that found to be efficacious in other studies (Homan et al., 1993). Additional research should be conducted so as to carefully match the duration of eyes-on-text training with various dependent measure outcomes. When investigating oral reading strategies, the effect on reader motivation and its subsequent influence on reading outcomes should also be explored. Research into the use of WCCR with other methods of monitored oral reading strategies should also be conducted to identify strategy blends that optimize the development of oral reading proficiency in struggling readers.

Conclusion

While WCCR may be a strategy more familiar to elementary school teachers, it is a strategy that lends itself to implementation with adolescent readers. As long as students arrive in middle school with languid reading skills, teachers will be challenged by their students’ difficulty in accessing texts that ultimately restrain progress within the curriculum. This leaves teachers with one of three choices with the first being to provide no support for struggling readers and to continue instruction as though all students have equal access to text. A second option is to modify instruction to fit the reduced reading competency of struggling learners. A third option, and the one advocated here, is to assist these readers by employing strategies that help them to increase their literacy skills, thus gaining greater access to the grade-level literacy of the content area. A final note is that the irony of WCCR is that the one thing struggling readers want to avoid, reading aloud in class, appears to be well tolerated when completed as part of a whole-class activity.
References


## Appendix A

**Procedures for Classroom Implementation of Whole-Class Choral Reading Using Repeated-Reading of Text**

*Before Reading*

1. Distribute reading passages to students (or display on overhead).
2. Ensure that all students are on the correct passage.
3. Briefly discuss text to aid comprehension.
4. On Monday, model aloud a fluent reading of the entire passage while students read along silently.
5. Review model reading by reading aloud target words that may not be familiar to students.

6. Teacher reminds students to observe prosodic elements of oral reading such as commas, periods, question marks, etc.

**During Reading**

7. Teacher counts down aloud to begin students reading on cue (“Three-two-one”).

8. Students and teacher read passage aloud with one voice.

9. Teacher is listening for reading miscues, proper phrasing, and difficulties with text while simultaneously modeling fluent reading.

**After Reading**

10. Through modeling aloud, review pronunciation of words and phrases that were difficult for students.

11. Teacher may have the entire class reread part or all of the passage as necessary to reinforce appropriate oral reading.

12. On Monday review important vocabulary and meaning of text to aid comprehension.

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**About the Author**

As an Assistant Professor of Education at Bellarmine University, Dr. Paige teaches graduate courses in literacy assessment, research, and measurement. Dr. Paige’s research focuses on the description of adolescent literacy behaviors and the measurement of instructional strategies that can assist struggling readers.
Assisted Reading with Digital Audiobooks for Students with Reading Disabilities

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Abstract

The goal of this study was to compare the efficacy of assisted reading with digital audiobooks with the traditional practice of sustained silent reading (SSR) in terms of reading fluency and reading attitude with upper elementary students with reading disabilities. Treatment group participants selected authentic children’s literature and engaged in assisted reading with digital audiobooks four to five times per week over an eight-week implementation period. Results showed that while all students demonstrated growth in reading fluency as calculated by words read correctly per minute, the growth of the treatment group far outweighed that of the control group. There was no significant difference in reading attitude scores. Consequently, this study shows that teachers can promote greater growth in reading fluency when assisted reading with digital audiobooks is implemented in the place of SSR.

Assisted reading with audio recordings has been used as an effective instructional intervention for students with learning disabilities (Carbo, 1978; Gilbert, Williams, & McLaughlin, 1996) and with struggling readers (Chomsky, 1976; Hollingsworth, 1978; Hoskisson & Krohm, 1974; Koskinen et al., 2000; Rasinski, 1990). The assisted reading method, reading along while listening to a fluent model (Kuhn & Stahl, 2003), may be resurfacing as a viable approach to fluency instruction and as a tool to improve reading attitude due to the growth in the popularity of listening to audiobooks. The availability and quality of audiobooks has improved
dramatically over the past decade (Johnson, 2003) as audiobook publishers recruit professional actors and trained orators who read with engaging expression that captivates listeners with their vivid storytelling. As a result, audiobook publishing has grown to a nearly 1 billion-dollar industry with audiobooks for children and teens making up 17% of the market (Audio Publishers Association, 2009). Pairing commercially-produced digital audiobooks with MP3 players, such as the Apple iPod, seems to have real potential in today’s classrooms.

Given that approximately 80% of students with learning disabilities struggle with reading (Shaywitz, 2003), instructional time must be used in the most efficient manner possible for students with reading disabilities. Although sustained silent reading (SSR) is a common classroom practice for elementary age students (Pilgreen, 2000; Yoon, 2002), its utility in improving reading has been called into question. The National Reading Panel (2000) reported a need for more research in order to prove its value in a student’s reading program and they also cautioned that SSR did not appear effective for struggling readers. Moreover, the panel found the practice did not improve the overall attitude students have about reading.

Professional literature increasingly speaks to how teachers can address variance in the general education classroom with differentiated instruction and therefore reduce the need for specialized instruction outside the classroom walls (Tomlinson & Germundson, 2007). In a position statement titled “Making a Difference Means Making it Different” by the International Reading Association (2000) the authors stated:

Because there is no clearly documented best, or only, way to teach reading, teachers who are familiar with a wide range of methodolo-
gies and who are closest to the children must be the ones to make the decisions about what reading methods and materials to use. Furthermore, these professionals must have the flexibility to modify those methods when they determine that particular children are not learning. Each child must be provided with an appropriate combi-
nation of methods. (p. 3)

Clearly, teachers are responsible for offering students multiple methods of instruction that have been proven effective in order to prevent and remediate reading difficulties. Given that SSR lacks sufficient evidence of effectiveness for students who struggle with reading, teachers might consider other means to meet the goals and objectives of SSR.
Sustained Silent Reading

SSR can be traced back to the 1950s when teachers regularly used workbooks as their primary means of reading instruction. SSR offered a period of time devoted to reading connected text so that students could transfer the isolated skills learned during the regular instructional period (Pilgreen, 2000) to a trade book. Reading instruction has changed dramatically since then (International Reading Association, 1999) and, while the National Reading Panel (2000) did not endorse SSR as a method of building reading fluency or reading attitude they did not completely reject the practice either.

Reading fluency experts allege the best way to facilitate the shift from deliberate decoding to recognizing the whole word is through extensive practice (Kuhn & Stahl, 2003; Rasinski, 2003). SSR is designed to provide readers with that extensive practice (Pilgreen, 2000), but it is not intended to serve as the primary component of a student’s reading program. The key components of SSR are self-selection of text and non-accountability (Pilgreen, 2000; Yoon, 2002), and a documented benefit of SSR is increased self-determination when students are able to select their own reading material (Yoon, 2002). Readers who feel ownership of what they read tend to persist for longer periods of time, pay closer attention to the text, and have a better attitude (Rehder, 1980). In addition, the use of authentic children’s literature seems to interest students and encourage them to read more (Flood, Lapp, & Fisher, 2005). The elimination of accountability, such as comprehension checks or response journals, sends a message to the reader: SSR is intended for the sheer enjoyment of literature. Nevertheless, it seems as though teachers can differentiate their instruction for students who struggle with reading to include the beneficial components of SSR and modify the practice so the diverse needs of students are being met.

Assisted Reading

The foregoing discussion suggests teachers may be able to make better use of time devoted to SSR when considering the needs of student with reading disabilities. This is supported by Flood et al. (2005) who noted that assisted reading methods could easily be implemented during either the classroom’s SSR or independent reading time. Like SSR, assisted reading is not designed to serve as the primary component of a student’s reading program. Some researchers explain that the use of these methods is so powerful since they act as a scaffold (Vygotsky, 1978) allowing students to read at their instructional level. The overall goal of assisted reading with digital audiobooks is similar to the goal of SSR in that students are exposed to literature; however, assisted reading approaches provide scaffolded support by using a fluent model as an example of effective reading practices, whereas SSR does not.
Over the years, technology has made implementation of assisted reading more feasible. The process evolved from one-to-one human interaction to tape-assisted reading to books on CD and now to digital audiobooks downloaded on MP3 players. Regardless of the medium used, the studies have consistently demonstrated positive results. The research findings of assisted reading with students with learning disabilities and with struggling readers lends credence to the claim that assisted reading improves overall reading fluency and therefore, promotes comprehension for students who are described as dysfluent readers. The studies presented in Table 1 confirm that assisted approaches were more effective than unassisted approaches. Researchers cite improvements in reading attitudes due to the self-confidence gained by marked improvements in reading fluency and comprehension, the ability to read grade-level text, and the enjoyment of reading high-interest material.

Table 1. Studies on Assisted Reading

<table>
<thead>
<tr>
<th>Study</th>
<th>Number of Subjects</th>
<th>Grade of Subjects</th>
<th>Fluency of Subjects at Implementation</th>
<th>Reading Level of Text Used</th>
<th>Special Education Label</th>
<th>Fluency Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbo (1978)</td>
<td>8 in treatment</td>
<td>2nd-6th</td>
<td>Below grade level</td>
<td>At or slightly above</td>
<td>Learning Disabilities</td>
<td>Improvement over time</td>
</tr>
<tr>
<td></td>
<td>group</td>
<td></td>
<td></td>
<td>reading level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chomsky (1976)</td>
<td>5 in treatment</td>
<td>3rd</td>
<td>Below grade level</td>
<td>Above reading level</td>
<td></td>
<td>6 months mean gain in 10 month period</td>
</tr>
<tr>
<td></td>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilbert et al.</td>
<td>3 in treatment</td>
<td>1st-2nd</td>
<td>Below grade level</td>
<td>Not specified</td>
<td>Learning Disabilities</td>
<td>Mean gain in WCPM for all subjects</td>
</tr>
<tr>
<td>(1996)</td>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hollingsworth</td>
<td>8 in treatment</td>
<td>4th</td>
<td>At grade level</td>
<td>Below, at, and above</td>
<td></td>
<td>T = C</td>
</tr>
<tr>
<td>(1970)</td>
<td>group</td>
<td></td>
<td></td>
<td>grade level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hollingsworth</td>
<td>10 in treatment</td>
<td>4th-6th</td>
<td>Below grade level</td>
<td>Below, at, and above</td>
<td></td>
<td>T &gt; C</td>
</tr>
<tr>
<td>(1978)</td>
<td>group</td>
<td></td>
<td></td>
<td>grade level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koskinen et al.</td>
<td>46 in treatment</td>
<td>3rd</td>
<td>Below grade level</td>
<td>Below, at, or above grade level</td>
<td></td>
<td>T = Ca</td>
</tr>
<tr>
<td>(2000)</td>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The method used for all studies was assisted reading with audio recordings of text. WCPM = words correct per minute; T > C = the treatment group showed mean gains higher than the control group; T = C the difference between the treatment and control group was not statistically significant; a = statistical significance was found on impact of assisted reading on reading interest.
In *Becoming a Nation of Readers* (Anderson, Hiebert, Scott, & Wilkson, 1985) the authors point out, “the single most important activity for building the knowledge required for eventual success in reading is reading aloud to children” (p. 23). Assisted reading exposes students to more literature and listening to books read by enthusiastic and expressive readers makes reading pleasurable (Casbergue & Harris, 1996). Assisted reading also enables struggling readers to self-select text, absorb storylines, attend to the plot, and listen to a fluent model (Carbo, 2005). The use of authentic children’s literature seems to interest students and encourage them to read more (Flood et al., 2005). These findings, coupled with the knowledge that assisted reading is a research-proven method for improving fluency, leads one to envision a place for audiobooks in a student’s balanced reading program. Additionally, it could be predicted that the practice of assisted reading could mitigate some of the problems students with reading disabilities have with SSR.

**Methodology**

**Experimental Design and Participants**

The goal of this research study was to examine how assisted reading with digital audiobooks and SSR influenced reading fluency and reading attitude. Students in the treatment group were given MP3 players with downloaded audiobooks and the accompanying text to follow along with while listening during the time normally devoted to SSR. Participants were 20 students from five different schools in a Midwestern suburban school district. According to the Standard and Poor’s School Evaluation Services (2005), the overall school district enrollment of 7,796 was made up of roughly 96% White, .5% African American, 1% Hispanic, and 1% Asian/Pacific Islander, with the population of students receiving special education at 10.7% at the time of the study. The subjects were upper elementary students with documented reading disabilities who had individualized education program (IEP) goals in the area of reading. Seventeen students were learning disabled and three had the label of Other Health Impairment due to Attention Deficit Hyperactivity Disorder (ADHD). The participating schools were randomly assigned to the treatment or control group. Due to the fact that the study involved intact groups, the participants were kept in their natural setting, allowing for a higher degree of external validity (Dimitrov & Rumrill, 1988). Random assignment to groups would have equalized characteristics of the participants, thereby isolating the effects of the intervention (Dimitrov & Rumrill, 1988; Keppel & Wickens, 2004); however, descriptive statistics were conducted to compare the characteristics of the participants in each group and groups were found to be analogous across measures of disability.
type, gender, and grade level. All students were educated in resource room settings, rather than self-contained special education classrooms or the inclusion setting. Independent-samples t-tests showed there to be no significant difference between the groups at the pretest measurement point for fluency and attitude.

A pretest, intervention, posttest design with treatment and control groups was used and a one-way between-groups analysis of variance was conducted to explore the differences in overall reading proficiency at the onset of the study between the treatment and control schools (see Table 2). Overall reading proficiency percentages were determined by scores on the Michigan Educational Assessment Program (MEAP) reading subtest. There was a statistically significant difference between the groups of schools ($F(1, 4) = 17.04, p < .05$) with the mean score for the control group ($M = 94, SD = 2.03$) significantly higher than that of the treatment group ($M = 91.26, SD = .55$). This factor is subsequently considered in the interpretation of the findings.

**Table 2. Comparison of Control and Treatment Schools**

<table>
<thead>
<tr>
<th></th>
<th>Control Schools</th>
<th>Treatment Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>School B</td>
<td>School C</td>
</tr>
<tr>
<td>Overall Reading Proficiency (%)</td>
<td>96.8</td>
<td>92.0</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>358</td>
<td>178</td>
</tr>
<tr>
<td>Economically Disadvantaged (%)</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Subjects Per School</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Measurement Instruments**

The measurement instruments used in this study consisted of the Dynamic Indicators of Basic Early Literacy Skills® (DIBELS) oral reading fluency measurements (Good & Kaminski, 2002) and the Elementary Reading Attitude Survey (ERAS) (McKenna & Kear, 1990). DIBELS was used to quantify the number of words read correctly per minute and the ERAS was used to quantify reading attitude.

**DIBELS Oral Reading Fluency Measurements**

A set of three passages written at each participant’s reading level, as identified by the students’ special education teachers, was used to assess the number of words correct per minute at baseline. Administration of the oral reading fluency portion
of DIBELS involved providing the reader with the leveled text and timing him or her for one minute. The number of words read correctly per minute served as the score. For the purpose of this study, the DIBELS oral reading fluency measurements were used to evaluate the effectiveness of the intervention; this is supported by Davidson and Myhre (2000) who stated that oral reading fluency measures represent an effective strategy for assessing progress in reading and serve as a barometer of the effect of intervention. Selection of passages at the independent or instructional reading level is also supported by Davidson and Myhre (2000) who found that passage difficulty at the appropriate levels are more sensitive to growth than passages at the frustration level. The scores were averaged to establish the pretest score and sets of three different DIBELS passages written at the same grade level as the materials used in the pretest phase were used to establish a posttest score.

**Elementary Reading Attitude Survey**

The ERAS, an assessment designed for students in grades 1-6, (McKenna & Kear, 1990) was used to evaluate reading attitude at the pretest and posttest stages. The ERAS is set up on a four-point Likert-type scale. More specifically, the survey uses a pictorial format depicting Garfield, the cartoon cat by Jim Davis, posed to represent the feelings of very happy, slightly happy, mildly upset, and very upset. Each test item is assigned a one, two, three, or four point value with a four being very happy, a three being slightly happy, a two being mildly upset, and a one being very upset. Each test item begins “How do you feel...,” and the student is to respond by circling the Garfield pose which best represents his or her feelings about the statement. Questions 1-10 discuss feelings regarding recreational reading and questions 11-20 discuss feelings regarding academic reading (McKenna & Kear, 1990). The students were informed that reading while following along to audiobooks should be included in their definition of reading (i.e., “How do you feel when you read a book or read while listening to an audiobook on a rainy Saturday?”). The ERAS has a standardized method of survey administration that increases reliability of the measure for pretest and posttest use (Johns & Lenski, 2005).

The measurement tools used in the present study are subject to threats of reliability, internal validity, and external validity. In regard to the measurement tool used to obtain reading attitude scores, Kazelskis at al. (2005), suggested that score instability could change based on how students feel about themselves and their performance in the classroom rather than their attitude specifically about reading. For example, if a student has received complimentary remarks on a particular reading activity, his or her attitude might be reflected positively on the survey. This threat to internal validity was addressed by having the primary researcher, someone who
had little contact with the students, conduct the assessment. The pretests and post-
tests were given in the same location, on the same day of the week, and at the same
time of day. A second threat to internal validity was repeated testing with the same
or similar measurement instrument. Consequently, when measuring reading fluency,
the primary researcher used different forms of the reading measurements written at
the same reading level for the pretest and posttest to control this threat. Given there
was only one form of the ERAS available, practice effects for the reading attitude
measure could not be controlled.

Procedures
The primary researcher met with each participant one-on-one in school to
complete the reading fluency and reading attitude pretest. The assessment admin-
istration time varied among students, but generally took from 10 to 15 minutes
for both the pretest and posttest. Immediately after the pretest, students in the
treatment group selected their books/audiobooks and were shown how to operate
their MP3 players. The assisted reading method was explained to the students and
teachers in the treatment group.

Three reading fluency scores from the DIBELS oral reading fluency measures
were averaged after the assessment administration to determine a mean fluency
score. Scores on the ERAS were also compiled following the meeting. Eight weeks
after the pretest was administered, the primary researcher met with each participant
again to administer the reading fluency and reading attitude posttest.

Materials
Students in the treatment group used MP3 players with downloaded audio-
books during the study. Two types of MP3 players were used: the iPod Shuffle and
the Buslink Musica. Each student was given an MP3 player with audiobooks of his
or her choosing downloaded on the device. The audiobooks were selected by each
student from a list of books written at or just below that student’s reading level.
The students were also provided the hard copy of the book that corresponded with
the audiobook to follow along while listening, directions for how to use their MP3
player, and a flat wooden stick to serve as a tracking tool. All materials were col-
lected and stored in a plastic bag. When students finished the books, the teachers
contacted the primary researcher and new audiobooks were downloaded onto their
MP3 players. The materials were stored and used in the students’ general education
classrooms. However, students were permitted to take the materials to their special
education classrooms to use if they were not in their general education classroom
during SSR time on a given day.
Treatment Group Intervention

Students in the treatment group began using assisted reading as an intervention one to two days after the pretest was administered. Instead of participating in traditional SSR in their classrooms for 20 to 30 minutes a day, four to five days a week, they engaged in assisted reading by listening to digital audiobooks on their MP3 players. Students were allowed to stop reading/listening to a book at any time if they desired to abandon a book in order to start a new one since this same allowance is made in traditional SSR. The primary researcher monitored treatment fidelity by checking the audiobook recording hours downloaded on each student’s MP3 player and keeping track of the number of books lent out and maintained weekly contact with the special education teachers via classroom visits and email. The students reported the number of chapters read if they stopped listening to a book in order to start a new one. One student was dismissed from the study due to lack of participation. Students in the control group continued participation in SSR after the pretest was administered and they were allowed to engage in SSR in either their general education classroom or resource room. The frequency of student engagement in traditional SSR was monitored and documented in the lesson plans of their classroom teachers. No students were dismissed due to lack of participation.

Results

This study addressed the following research questions: (a) Is there a significant difference between the reading fluency rates of the treatment and control groups, as reflected in the pretest and posttest fluency scores? (b) Is there a significant difference between the reading attitude scores of the treatment and control groups, as reflected in the pretest and posttest attitude scores? Each question was addressed using inferential statistical analysis, with all determinations of statistical significance of the findings made using an alpha of .05. Equality of variance was investigated and there was no departure from normality at any point for the reading fluency variable or the overall reading attitude variable (all $p$s < .05).

Research Question One

After an eight-week intervention (assisted reading with digital audiobooks and MP3 players) with a treatment group, is there a significant difference between the reading fluency rates of the treatment and control groups, as reflected in the pretest and posttest fluency scores?

A mixed between-within subjects ANOVA was conducted to determine if there were differences in mean scores for the treatment and control groups at the
onset of the study (pretest) and at the conclusion of the study (posttest). Table 3 presents means and standard deviations for each group over the two measurement periods. Initial examination of compound symmetry was found to be violated in all cases ($p > .05$); therefore, the more conservative Huynh-Feldt statistic is subsequently reported (Cohen, 1988). Analysis of variance results showed a statistically significant main effect for pretest and posttest scores ($F(1, 18) = 31.39, p < .001$, eta squared = .64) and a significant interaction between the two groups ($F(1, 18) = 10.45, p = .005$, eta squared = .37). Since the significant interaction precludes interpretation of main effects, an analysis of simple effects was initiated.

Table 3. Reading Fluency Means and Standard Deviations for Group by Time Period

<table>
<thead>
<tr>
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<th>Control</th>
<th>Treatment</th>
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<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>WCPM Pretest</td>
<td>74.76</td>
<td>13.69</td>
</tr>
<tr>
<td>WCPM Posttest</td>
<td>79.33</td>
<td>12.47</td>
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Paired-samples t-tests were conducted to compare pretest and posttest scores for the control group and the treatment group. Results indicated a significant increase in posttest scores for both the control group ($t(9) = 3.55, p = .006$, eta squared = .58) and the treatment group ($t(9) = 4.69, p = .001$, eta squared = .71). Thus, both groups showed improvement in number of words read correctly per minute between the pretest and posttest periods; however, the treatment group demonstrated larger gains.

Next, independent-samples t-tests were conducted to compare the pretest and posttest scores for the treatment and control groups. Equality of variance was investigated at both time points and was not found to be violated at either the pretest or posttest ($ps > .05$). There was no significant difference in pretest scores for the groups ($t(18) = 1.11, p = .28$, eta squared = .06). However, there was a significant difference in posttest scores for the groups ($t(18) = 2.47, p = .02$, eta squared = .25). This shows that while the students in the treatment and the control groups did not differ at the onset of the study in terms of reading fluency, by the conclusion there was a significant increase in the number of words read correctly by the treatment group. This must be viewed in light of the descriptive statistics of the participants that revealed that the overall reading proficiency at the onset of the study was actually higher for the control group schools ($M = 94, SD = 2.03$) than that of the treatment group schools ($M = 91.26, SD = .55$).
Based on the findings, the null hypothesis of no difference in reading fluency rates between the treatment and control groups after the intervention was rejected. Consequently, the treatment group showed a greater increase in number of words correctly read per minute.

**Research Question Two**

After an eight-week intervention (assisted reading with digital audiobooks and MP3 players) with a treatment group, is there a significant difference between the reading attitude scores of the treatment and control groups, as reflected in the pretest and posttest attitude scores?

A two-way mixed factorial ANOVA was used to compare for mean differences in pretest and posttest scores on reading attitude between the treatment and control groups. Means and standard deviations for each group across the time periods are presented in Table 4. Analysis of variance results indicated that there were no statistically significant main effects for group ($F(1, 18) = 1.43, p = .25$) or time period ($F(1, 18) = .15, p = .71$). The obtained eta squared of .07 for group and < .01 for time as measurements of effect size obtained for this analysis were considered low (Cohen, 1988). There was not a significant group and time interaction ($F(1, 18) = 1.32, p = .27$, eta squared = .07).

**Table 4. Reading Attitude Means and Standard Deviation for Group by Time Period**

<table>
<thead>
<tr>
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<th>Control</th>
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<th>Treatment</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Attitude Pretest</td>
<td>54.90</td>
<td>6.19</td>
<td>55.30</td>
<td>7.59</td>
</tr>
<tr>
<td>Attitude Posttest</td>
<td>53.00</td>
<td>8.11</td>
<td>59.10</td>
<td>10.45</td>
</tr>
</tbody>
</table>

As a result of these findings, the null hypothesis of no differences in reading attitude scores between students in the treatment and control group was accepted. Therefore, it can be concluded that reading attitude was affected neither by the intervention (assisted reading with audiobooks during SSR time) nor by the control situation (traditional SSR) across the onset and conclusion of the study.

Assisted reading with digital audiobooks had a more positive impact on reading fluency rates for the treatment group as compared to the control condition for the population examined. Students in the treatment group demonstrated a mean increase of 17.03 words correct per minute, while control group students only increased by a mean of 4.57 words correct per minute. Thus, students in both groups made gains, but the increase in number of words read correctly per minute by the
treatment group far outweighed gains by the control group (eta squared = .25). An examination of the reading attitude mean scores showed a slight increase in scores for the treatment group, whereas there was a slight decrease in scores for the control group. However, these results were not significant.

**Discussion**

**Gains in Reading Fluency**

The positive fluency findings provide an extension of both the Carbo (1978) study and the Gilbert et al. (1996) study. It is also worthy to note that Deno, Fuchs, Marston, and Shin (2001) conducted a large-scale study ($N = 2999$) aimed at using curriculum-based measurements to establish growth standards for students with disabilities. According to their research, students receiving special education could be expected to demonstrate an increase of .58 words correct per minute each week. In the context of the present study, using these findings, students would be expected to demonstrate an increase of 4.64 words correct per minute at the end of the eight-week implementation period, which parallels the improvement made by the treatment group ($M = 4.57$). Conversely, students in the control group improved their reading rates by an average of over 12 words beyond what is expected of a student receiving special education over the eight-week implementation period ($M = 17.03$).

**Lack of Gain in Reading Attitude**

Reading attitude scores increased over the implementation period for the treatment group and decreased for the control group, but the finding was not statistically significant. Given that SSR time is normally devoted to reading based on the students’ unique literary interests, one must wonder if students in the treatment group were affected by the limitation that they had to engage in assisted reading with digital audiobooks in order to continue as participants in the study. One explanation may be that students in the control group were only ever presented with the option of SSR, whereas the students in the treatment group varied from the traditional practice. Did the students in the treatment group feel a lack of self-determination as a result? Traditional SSR allows for self-selected reading of any material, including books from home, classroom libraries, and school libraries. Did treatment group students feel restricted by the reduced number of book choices they had due to the fact that many books had not been converted to audio format at the time of the study? Might there have been a significant positive increase in reading attitude if students were given the option of listening to audiobooks while following along during SSR time, instead of having it mandated? Interviews with
treatment group participants, conducted informally after completion of the post-testing, indicated that the lack of self-determination may have played a role in the nonsignificant findings in recreational reading attitude.

When considering the results from research question one, which pertained to more significant gains in reading fluency for treatment group participants, one must wonder if a significant increase in academic reading attitude would have been found had there been a longer time period between the pretest and posttest measurement points. Put simply, would treatment group students begin to see and feel their improvement in reading fluency and therefore, report a more positive attitude regarding academic reading as a result of their success? A longer intervention period may have enabled students to realize the transference of skills acquired through the practice of assisted reading with audiobooks to their independent reading.

**Educational Implications**

The research presented in this study helps guide instructional planning for students with reading disabilities. The implications presented include: (a) offering assisted reading as an accommodation to promote differentiated instruction during SSR, (b) adding assisted reading to a balanced literacy program, (c) implementing assisted reading as an evidence-based intervention for students at risk for reading failure, and (d) encouraging assisted reading during recreational time.

**Assisted Reading as an Option to Accommodate Reading Difficulties During SSR**

The results support the importance for teachers to provide more options for students during the time normally devoted to SSR. The significant findings in reading fluency support the educative value of assisted reading with digital audiobooks as an accommodation for students with reading disabilities. When considering which method to choose for students, practitioners must consider students’ readiness levels, interests, and learning profile (Tomlinson, 2004). Oftentimes, allowing student choice yields a positive experience for the student (Cooper & Tomlinson, 2006) thus teachers should provide students with the option of listening to audiobooks while following along with the text during SSR time. Also, providing this option to students promotes differentiated instruction.

**Assisted Reading as an Addition to a Balanced Literacy Program**

Effective elementary literacy instruction balances holistic literacy experiences, such as reading authentic literature; and skills instruction, such as phonics and the teaching of comprehension strategies (Pressley, Roehrig, Bogner, Raphael, & Dolezal, 2002). Students need both holistic and direct instruction to grow and develop as readers (Carbo, 2005; International Reading Association, 1999). Although
most students with reading disabilities benefit tremendously from direct instruction in phonics (Bender, 1999; Mercer & Mercer, 2005), experiences with authentic literature and exposure to good books is a necessary part of an effective reading program. Students who struggle with reading should not be limited to skills-based instruction alone (Carbo, 2005; Pressley et al., 2002). In fact, direct instruction in phonics should consume one quarter or less of a total reading program (Carbo, 2005). Assisted reading with audiobooks provides meaningful access and increases exposure to literature (Gilbert et al., 1996). Teachers should evaluate whether an overemphasis on skills-based instruction is occurring in the reading programs of students with reading disabilities and consider adding assisted reading with digital audiobooks to their programs as a means of increasing exposure to authentic literature and improving reading fluency.

Assisted Reading as an Evidence-based Intervention

The Individuals with Disabilities Education Improvement Act (2004) has created significant changes in the identification of students with learning disabilities with the elimination of the criterion that a severe discrepancy between achievement and intelligence be present in order for a student to qualify as learning disabled (R340.17, 2004). A new pathway for determination of eligibility, called Response to Intervention, emerged as a result in the change in legislation (Jennings, Caldwell, & Lerner, 2006). Ultimately, Response to Intervention is both an identification and prevention model which features multiple tiers of evidence-based interventions focused on the individual needs of the student (Justice, 2006). These multi-tiered interventions are aimed at reducing deficits in reading and are implemented throughout the period of possible identification of a disability. A key premise of Response to Intervention is the implementation of evidence-based strategies (Jennings et al., 2006; Justice, 2006). Given the research presented in this study and existing research supporting the use of assisted reading (Carbo, 1978; Chomsky, 1976; Gilbert et al., 1996; Hollingsworth, 1978; Hoskisson & Krohm, 1974; Koskinen et al., 2000), assisted reading with digital audiobooks could be added to teachers’ battery of interventions to implement throughout the Response to Intervention tiers.

Assisted Reading for Recreation

Students who struggle with reading require increased exposure to literature in order to automatically recognize and recall words, and spending time with text promotes overall reading ability (Allington, 2009; Yopp & Yopp, 2003). Providing access to materials needed to implement assisted reading with digital audiobooks in students’ recreational time could be a step toward increasing the exposure students have to literature. School and public libraries should allow students to check out
MP3 players with downloaded audiobooks for home use. Teachers could support families of students with reading disabilities by training parents in the method and by offering suggestions in their newsletters for integrating assisted reading with audiobooks into recreational time.

Limitations

This study had limitations that affect the interpretation and generalizability of the results. First, a relatively small sample size was used in this study. Ten students participated in the treatment group and ten in the control group. These group sizes make generalizability more difficult (Cohen, 1988). However, the results support existing research with similar populations (Carbo, 1978; Gilbert et al., 1996). Second, the teachers used a variety of supplemental reading programs other than the commercially-produced curriculum subscribed to by the district and therefore, the consistency of instruction across schools varied. Third, there is a possibility students did not fulfill the requirements of the study as intended given the tendency for students, especially those with learning disabilities and Attention Deficit Hyperactive Disorder (ADHD), to lose focus. No evidence suggests that treatment or control group students did not participate in assisted reading with digital audiobooks or traditional SSR respectively during the time allotted, but the possibility should be considered.

Future Research

Additional studies could include extending the implementation period and allowing for students to use assisted reading with audiobooks as an option rather than requiring its use. It would be sensible to increase the intervention period and allow the students the option of using an MP3 player with downloaded audiobooks instead of insisting that they use the intervention throughout the study. Students could also introduce themselves to the book by listening while following along to the first couple of chapters and then read the rest of the book on their own. Another option is to alternate listening while following along to a digital audiobook to its completion and reading books without audio support. This would allow the students increased self-determination and may increase reading attitude.

Evaluating the use of assisted reading with audiobooks against other instructional methods such as repeated reading and other programs such as Read Naturally® would add to the existing research (Hasbrouck, Ihnot, & Rogers, 1999). In a review of developmental and remedial reading practices in the area of fluency, Kuhn and Stahl (2003) found that repeated reading produced statistically significant
improvement in reading rate and oral reading expression on practiced passages. Conversely, they also raised the question:

Does this understanding develop simply from the amount of practice students undergo with regard to word recognition, or is there something more specific to their reading of connected text and their emerging sense of its relation to oral language that allows for this understanding to develop? (p. 18)

Even though the National Reading Panel (2000) has found repeated reading to be a favorable method for improving reading fluency, it remained unclear whether its benefits were transferable to novel texts or if there was a negative impact on reading attitude. This causes one to consider: If assisted reading with audiobooks provides increased and scaffolded practice with word recognition, is there a need for students to engage in repeated reading if there may be detrimental effects on reading attitude?

Future research could examine other variables such as reading prosody and reading comprehension. In this study, fluency was defined as the number of words read correctly per minute, but reading fluency encompasses more than just reading accuracy and rate. Rasinski (2004) cautioned that improving reading rate should not be the chief goal; teachers should also assess and instruct in the areas of expression, volume, phrasing, and smoothness. Research should be conducted to determine if listening to highly trained orators read books aloud has a positive impact on reading prosody. Hearing what fluent reading sounds like and how readers interpret the text with their voices may prompt students to do the same.

There is a direct link between reading fluency rates and comprehension (Allington, 1983; Hudson, Lane, & Pullen, 2005; Samuels & Farstrup, 2006). When a reader does not have to spend time decoding words, the mind is available for understanding of the text to occur (LaBerge & Samuels, 1974). It is worthy to note, the treatment group made significant growth in reading fluency rates over the eight-week intervention period, increasing from a mean score of 84 to 101.03 words correct per minute. This is a gain of 2.13 words per week. It has been estimated that increases of 15 to 20 words correct per minute are required to make a positive impact on comprehension. Consequently, students who increased at the rate of one to two words per week could be expected to demonstrate growth in comprehension after 10 to 20 weeks of instruction (Deno & Markell, 1997). It can be assumed that students in the treatment group improved their comprehension because their mean increase was 17.03 words correct per minute, but additional
studies that specifically measure reading comprehension would make a definite contribution to existing research.

**Conclusion**

The present study adds to the existing knowledge base by studying the effects of assisted reading methodology with commercially-produced digital audiobooks and MP3 players. Results showed that upper elementary students with reading disabilities demonstrated a greater increase in reading fluency rates when assisted reading with digital audiobooks was utilized as compared to the control group that participated in SSR. Reading attitude findings were not significant. Based on existing literature and the present study, the future of assisted reading with digital audiobooks appears to be bright. This method will, hopefully, find its way into the reading programs of students with reading disabilities as a means of further differentiating instruction in reading.

**References**


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Promoting At-Risk Preschool Children’s Comprehension through Research-Based Strategy Instruction

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Abstract
Young children living in poor urban neighborhoods are often at risk for reading difficulties, in part because developing listening comprehension strategies and vocabulary knowledge may not be a priority in their prekindergarten classrooms, whose curriculums typically focus heavily on phonological awareness and alphabet knowledge. Prereading comprehension strategies are instrumental in developing skilled readers and significant to future academic success; their absence in preschool classrooms may contribute to challenges children face while learning to read. This article examines an exploratory investigation in two low-income public prekindergarten classrooms where children received an eight-week intervention to develop intentional comprehension strategies. Implications of this work for teachers and teacher educators are also addressed.

Introduction
Preschool has taken its place as a vital step in children’s educational development. In 2007, 74% of four-year-olds attended some kind of preschool; 48% of those attended a program that considered income as a basis for enrollment (Barnett & Yarosz, 2007). Having large numbers of low socioeconomic status (SES) children attending preschool is very positive, however, benefits of preschool are ultimately tied to the quality of instruction, a national issue plaguing preschool programs (Barnett, 2007). This is particularly evident in the teaching of early literacy skills (Dickinson & Caswell, 2007) as providing effective, well-educated teachers, research-based curricula,
and literacy rich classroom environments is particularly important for success with children in poverty (Early, Maxwell, & Burchinal, 2007; Justice & Vukelich, 2007).

Evidence of predictable gaps exists between lower and higher SES children’s knowledge and achievement in formal school settings (Whitehurst & Lonigan, 1998; Zill, Resnick, & Kim, 2003; Neuman, 2007). Before and after entering school poor children may have limited access to print materials and home learning opportunities (Constantino, 2005; Neuman & Celano, 2001) and their caregivers may face numerous challenges in addition to economic disadvantage. These include low levels of education, multiple jobs, single-parent households, and higher levels of depression among parents that may make it difficult for them to assist their children in learning (McLoyd, 1998; Ceballo & McLoyd, 2002). Children in lower SES brackets may also be less prepared for school due to having more limited vocabulary and background knowledge than those from more economically advantaged homes (Celano & Neuman, 2008; Hart & Risley, 1995; Dickinson, Cody, & Smith, 1993). Considering all of the possible obstacles to the literacy learning of children from low-income homes, it is apparent that a more well-rounded literacy curricula might best enhance their early education. In addition to developing phonological awareness and alphabet skills, a strong emphasis on building background knowledge, vocabulary, and comprehension strategies is imperative (Dickinson & Tabors, 2001; Hart & Risley, 1995; Neuman & Celano, 2006).

In the last two annual International Reading Association’s “What’s Hot Reports” (Cassidy & Cassidy, 2008; 2009), more than 50% of survey respondents reported comprehension as a hot topic and all agreed it should be extremely hot. Yet little comprehension instruction is observed in preschool classrooms (Neuman & Celano, 2001). In fact, many early childhood educators have not received training in teaching comprehension strategies and therefore, may not understand their value or include them in early literacy curriculum (Pearson & Duke, 2002). Typically, when children are taught comprehension strategies, instruction occurs during interactive storybook reading (Cornell, Senechel, & Brodo, 1988; McGee & Schickedanz, 2007; Paris & Paris, 2003) and there continues to be a lack of structured curricula focusing on strategy development. In most cases, emphasis in early literacy continues to focus on instruction in phonological awareness, alphabetic principle, and increasing vocabulary in number and complexity (Fischel et al., 2001) but, to become readers, not just decoders, children need to learn how to comprehend. This instruction must begin at a very young age, rather than when children enter primary grades (Neuman, 2006). Dooley (2010) reports on the nature of emergent comprehension and what kinds of meaning children construct when they encounter books.
Emergent comprehension refers to the behaviors and skills that children develop prior to conventional text comprehension, which are more flexible and child-driven than adult comprehension behaviors. Dooley (2010) states, “From early interactions, children develop knowledge about how to comprehend in ways that are essential to conventional reading comprehension development” (p. 120). It is clear from this research that comprehension is an emergent prereading skill that should not be left until the middle elementary years.

**A Preschool Foundation for Comprehension Strategies**

Gamsee, Bloom, Kemple, and Jacob (2008) revealed that on average, across participating sites, Reading First (U.S. Department of Education, 2002) did not increase the percentages of students whose reading comprehension scores were at or above grade level in the first, second, or third grade as fewer than half of the students in these grades were reading at or above grade level. This news is devastating for children who demonstrate that they cannot understand short paragraphs typically appearing in age-appropriate books, supporting the fact that comprehension strategy development cannot wait until children learn to read. Many children in the early elementary grades, even those receiving interventions such as Reading First, are struggling with comprehension strategies. Lynch et al. (2008) find skills used by preschoolers and kindergarteners during comprehension of narratives read aloud (such as inferencing, integrating existing knowledge, and retelling) are similar, though not as sophisticated, as older children’s strategy use during reading comprehension. “In summary, the evidence we have on preschool children suggests that they engage in some of the same comprehension processes as do older children and adults” (Lynch et al., 2008, p. 332). Establishing these skills in the preschool years may help lay the foundation for future reading success.

**What is Comprehension?**

When describing young children’s comprehension, Dooley and Matthews (2009) use the term emergent comprehension, saying, “young children, prior to conventional text comprehension, engage in personally meaningful experiences that stimulate use of meaning-making strategies with the potential to affect later reading comprehension” (p. 273). When children are engaged in comprehension, among other things, they are relating what they are trying to learn from stories or conversation to what they already know and have done. “Children rely on prior knowledge to interpret and construct meaning about what they listen to” (Morrow, Freitag, & Gambrell, 2009, p. 41). Comprehension also requires children to draw on contextual and world knowledge that cannot be found in a single word or sentence (Lonigan &
Whitehurst, 1998) as it is the outcome of connecting information, ideas, images, and known knowledge to form coherent ideas and concepts. “Children’s understanding of books that they read, hear and view is an active, constructive meaning-making process that requires the coordination of various skills, knowledge, and strategies” (Paris & Paris, 2003, p. 2). When children are able to read, meaning is created by interacting with words in the text. However, before children read, ideas and concepts are primarily linked through listening and personal interaction (Dickinson & Tabors, 2001; Teale, 1985; Morrow, 1988). The focus of this article is on narrative listening comprehension. Lynch et al. (2008) state:

To fully comprehend a narrative, children must not only understand and encode the individual events in the story but also conceptually connect different parts of the narrative. This requires, among other skills, sensitivity to the structure of narratives, the ability to make inferences, and the ability to access background knowledge about a great variety of situations and facts. (p. 328)

Although we know children need to decode and read fluently to become successful readers (Adams, 1990; Fuchs & Fuchs, 2005), reading is not just about being able to decode words on a page. If a child has limited vocabulary and does not understand what he/she is decoding, then little has been accomplished to increase the knowledge or motivation to engage in further reading (Biemiller, 2006; Snow, Burns, & Griffin, 1998). Teaching young children age-appropriate emergent comprehension strategies provides a scaffold to reading comprehension strategy development and future success in reading comprehension (Dooley, 2010; Dooley & Matthews, 2009; Paris & Paris, 2003; Pressley, 2002).

What Do We Know About Predictors of Future Reading Achievement?

Studies have shown that current early literacy curricula can improve children’s basic early literacy skills, but few studies have accurately measured preschool comprehension improvement after comprehensive comprehension curriculum interventions (Fischel et al., 2007; Lonigan & Burgess, 2000). The National Early Literacy Panel (NELP) (2008) has supported the fact that knowledge of basic skills (such as alphabet knowledge and phonological awareness) is among the top predictors of later reading achievement. However, the report also states that there is a dearth of well-constructed empirical studies measuring prereader comprehension, resulting in difficulty demonstrating empirical support for its value as a predictor and inclusion in early literacy curriculum (National Early Literacy Panel, 2008). Most assuredly,
strong support for teaching basic skills is, in part, derived from ease of assessment as it is much easier to accurately measure constrained skills such as alphabet knowledge, phonological awareness, and concepts about print allowing for clearer, sounder empirical studies (Paris, 2005; Paris & Paris, 2006). But comprehension is composed of a multitude of unconstrained skills, thus, “comprehension in its different forms cannot be quantified and assessed easily along a single dimension—unlike phenomena such as height, weight, and perhaps even basic reading skills such as vocabulary and phonological awareness” (Kendeou et al., 2005, p. 92).

**Should Comprehension Strategies Be Taught Simultaneously with More Traditional Skills?**

Paris and Paris (2003) disagree with the common claim that basic skills must come first, stating that this approach “overshadows comprehension by ignoring how cognitive processes such as schema activation, context, strategy use, and inference are involved in early reading” (p. 41). Instruction targeted toward developing unconstrained skills such as comprehension need not wait until more traditional, or constrained, skills have been mastered. In a theoretical discussion of differences between constrained and unconstrained literacy skills, Paris (2005) states, “unconstrained skills such as vocabulary and comprehension develop before, during, and after constrained skills are mastered so there is no evidence to warrant instructional priority of constrained skills over unconstrained skills” (p. 200). Unconstrained literacy strategies must be established congruently and purposefully along with the more traditional literacy skills children acquire in preschool. Kendeou et al. (2005) agree, stating that “comprehension skills develop simultaneously with, rather than following, basic language skills” (p. 91). Their longitudinal work with 4-8-year-olds demonstrates that comprehension strategies developed early significantly predict later reading comprehension. This finding provides strong evidence for including comprehension strategy instruction for prereaders.

**Which Comprehension Strategies Should be the Focus of Preschool Instruction?**

Research has demonstrated the need for the teaching of specific strategies to young children to help develop comprehension abilities in preschool and the early elementary years (Myers, 2005; Paris & Paris, 2007). Four strategies are most commonly identified in this literature as increasing listening comprehension for prereaders and contributing to future reading success: (a) constructing understanding of story language and structure by connecting ideas from a story to prior knowledge, (b) predicting what will happen next in a story, (c) retelling story sequences, and (d)
linking new words to known concepts and experiences to assist with understanding (DeBruin-Parecki, 2009; DeBruin-Parecki & Squibb, 2010; McKeown & Beck, 2006; Morrow, Freitag, & Gambrell, 2009; Paris & Paris, 2003; van Kleeck, 2008). Further, young children need to learn to transfer these strategies to varied genres and real life learning and all four strategies have been shown to relate directly to comprehension growth (Morrow, Freitag, & Gambrell, 2009; Teale, 2003; Teale & Martínez, 1996). What follows is a brief discussion of each strategy.

Connecting Ideas to Prior Knowledge

Connecting ideas to prior knowledge is how children first learn to comprehend. It requires children to make sense of ideas and encourages them to reflect on the content of stories and find ways to make it relevant by “building links between the text and their prior knowledge to fill in information that is left implicit” (Brandão & Oakhill, 2005, p. 698). Children who are skilled in comprehending also integrate information from the story with relevant background knowledge (Brandão & Oakhill, 2005). To increase comprehension, teachers can acknowledge students’ comments and point out similarities and differences in personal knowledge while directly connecting that knowledge to the story. This is particularly important when children are expounding on personal knowledge in a group setting because information shared that is irrelevant to the story may disrupt comprehension (Beck & McKeown, 2001).

Prediction

Vital to comprehension is “the construction of the text one is reading” (van den Broeck et al., cited in van Kleeck, 2008, p. 628). One way to accomplish this is through prediction; young children listening to or having heard stories can go beyond the information provided in the book to fill in ideas needed to understand and elaborate on the story. Preschoolers are clearly able to engage in this strategy to demonstrate their capability to comprehend (van Kleeck, 2008). Shared book reading and focused activities provide support and opportunities to develop young readers’ ability to make predictions.

Retelling

Retelling a story compels the listener to revisit what was heard and construct a coherent representation of it (Cairney, 1990). When children retell a story, either in part or entirely, they are being asked to recall key elements from the beginning, middle, and/or end of a story, including characters and plot, solving problems, and addressing solutions (Hansen, 2004). Very young children often recall a stream of information about a story when asked, without regard for sequence of ideas in the story. As this skill develops, children start to provide more cohesive and sequential
retellings that demonstrate their clear understanding of organization and story content. Teaching children how to retell in this manner ultimately leads them to deeper comprehension (Pellegrini & Galda, 1982).

**Linking New Words to Known Concepts and Experiences**

For children to progress in their comprehension strategy development, they need to acquire a strong vocabulary base as limited vocabulary can hinder comprehension (Biemiller, 2003). Parents and caregivers differentially impact young children’s vocabulary acquisition, based on many factors such as their educational level and economic status. Children can learn new and rare words in the context of story reading (Dickinson & Tabors, 2001) when teachers define them, provide examples of other circumstances where the word might be used, allow children to own words through their self-generated examples, or add the vocabulary to everyday classroom conversations. As children’s vocabularies grow, they will be able to better understand concepts and words in stories leading to deeper comprehension of ideas and storylines (Beck & McKeown, 2007). When children’s vocabularies include a wide range of words and concepts, they also are better able to comprehend stories being read aloud and, in the future, as they are reading (Biemiller, 2003).

**Teacher Education and Professional Development**

Young children are unlikely to learn comprehension strategies if they are not intentionally taught. Intentionality of instruction and recognition of teachable moments by teachers is vital (Landry, Anthony, Swank, & Monseque-Baily, 2009) to help assure that children understand and use what is being taught: in this case, strategies to build comprehension processes. Unfortunately, intentional teaching of comprehension strategies to preschool children is often lacking because teachers may not have had the opportunity to learn about this type of instruction, either in their preservice education or during regular professional development. Cunningham, Zibulsky, and Callahan (2009) state, “... conversations about building teacher knowledge through preservice programs and professional development have tended to concentrate on the needs of elementary school teachers and students, rather than the needs of preschool teachers and their younger learners” (p. 48).

While the strategies used in this study may not appear to be innovative, they are rarely taught intentionally in the classroom (Neuman, 2006). This study not only examined young children’s progress in learning comprehension strategies, but we also spent intensive time working with teachers and assistants to provide knowledge about comprehension strategy instruction, building on teachable moments, and integrating these multiple strategies throughout the school day in varied contexts.
“Although teacher outcomes are considered an intermediate process within intervention research, they represent the primary mechanism through which an intervention achieves its effect” (Pence, Justice, & Wiggins, 2008, p. 330). In order for implementation of a curriculum to be effective, teachers need to value what is being taught and receive frequent, consistent, and intensive professional development (Dickinson & Caswell, 2007). In addition, coaching from highly qualified and experienced educators can assist teachers in understanding strengths and recognizing areas for improvement (Rodgers & Rodgers, 2007). Teacher response journals linked to daily implementation of curriculum allow for reflection on practice, which moves teachers toward embracing more effective instructional methods (Gilrane, Russell, & Roberts, 2008).

Implementing a Comprehension Strategy Curriculum

This exploratory investigation involved implementation of an eight-week research-based comprehension strategy curriculum to examine the value of intentionally teaching the four previously discussed strategies to prekindergarten students, particularly those at risk of low achievement. Upon investigation of studies teaching multiple comprehension strategies to children similar to those taught in this investigation, it was found that studies ranged in both intensity and frequency of intervention (Palinscar & Brown, 1984; Paris & Paris, 2007; Sporer, Brunstein, & Kieschke, 2009). Length of studies ranged from 25 days to approximately 24 weeks for interventions focused on strategy instruction, and intensity most often varied from one to three sessions per week. This investigation took place over eight weeks, with three sessions per week for a total of 24 sessions. Each session included a whole group reading session and a small group activity.

Participants

A pre- and posttest design was used to investigate effects of comprehension strategy instruction for a sample of low-socioeconomic prekindergarten students. Participants were 30 prekindergarten children in an urban Mid-Atlantic Title 1 public school full-day program. The sample consisted of 13 males and 17 females, average age 4.5 years. The sample included 25 African Americans, 1 Caucasian, 2 Hispanics, 1 Asian, and 1 student of Middle Eastern descent.

The intervention was implemented in two classrooms, each with 15 children, one lead teacher, and one paraprofessional. Six prekindergarten teachers were recommended for participation by the principal. Two teachers were selected for this investigation, being well matched on factors such as years of experience and education.
level, both having continued coursework past the Bachelor’s degree level including some coursework focused on literacy. Literacy instruction is a top priority for the district; however, comprehension strategy instruction was not a focus of the curriculum prior to the intervention.

Materials and Procedures

The comprehension strategy curriculum was designed to target development of four research-based comprehension strategies: connection to life, prediction, retelling, and increasing vocabulary, and integration of these strategies. Lessons were developed by the authors as part of a larger comprehension curriculum designed to supplement the existing educational materials provided by the district. The lessons presented during this intervention comprise the first of four thematic units within the larger curriculum. Each week of this intervention was centered on the theme of “Friendship” using one of eight selected storybooks (see Table 1).

Table 1. Comprehension Strategy Instruction

<table>
<thead>
<tr>
<th>Comprehension Strategy Instruction</th>
<th>Week</th>
<th>Strategy</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Connection to Life</td>
<td>Books with relevant themes and plot chosen, whole group/activity-based small groups. Student-generated oral, pictorial, and print experiences connecting text to students’ lives.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Vocabulary</td>
<td>Books and target words chosen to enhance comprehension of story; whole group/activity-based small groups. Focus on both teacher-generated and child-generated definitions, including non-text-based contexts of target words. Instruction delivered using word cards, word walls, and activity-based review.</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Prediction</td>
<td>Use of predictive stories, whole group/activity-based small groups. Priority given to using evidence to support predictions and evaluation of predictions based on evidence.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Retelling</td>
<td>Use of stories that provide multiple opportunities for retelling, whole group/activity-based small groups. Use of story-based sequencing cards, dramatic interpretation, manipulatives, and props.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Integration of Connection and Vocabulary</td>
<td>Books are chosen to facilitate integration of strategies, group/activity-based small groups, child author and illustrator, art activities, songs and drama, scavenger hunt, and activities designed to increase background knowledge.</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Integration of Retelling and Prediction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 &amp; 8</td>
<td>Integration of All Strategies</td>
<td></td>
</tr>
</tbody>
</table>
Comprehension strategy instruction took place in the first half of the school day, three days per week, for eight weeks (25% of the school day). Project teachers presented 40 minutes of whole group instruction in the context of storybook reading, including vocabulary instruction on target words drawn from the week’s story, followed by 30 minutes of small group activity-based instruction directly related to the target strategy/s being taught that day. Researchers presented lessons and small group activities to project teachers during weekly 90-minute professional development sessions, which included feedback and coaching specific to teachers’ instruction. A research team member was present daily observing, videotaping, and writing field notes in each classroom during comprehension instruction and activities. A full day of professional development preceded the first week’s lesson and served to orient project teachers to comprehension strategy instruction and target strategies and books serving as the focus of instruction.

Whole group lessons included vocabulary introduction, shared book reading, and interactive discussion with children. Selected vocabulary was introduced to children during whole-group lessons using cards with pictures as well as the written word. Target words were selected from curriculum storybooks based on being rare words unlikely to be known to children, yet integral to comprehension (e.g., luminous, admiration, splendid). An average of 7 words per book was taught, for a total of 56 vocabulary words. Project teachers introduced the word and provided a children’s dictionary definition as well as a simplified version of the meaning. Children were asked to give a “thumbs up” when they heard the word during read-alouds and when they did this, they were asked to contribute what they remembered and knew about the word. In addition, target words were integrated into multiple classroom contexts and used by teachers and children whenever possible throughout the day (for example, one teacher reported her children using the target word navigation while walking to the cafeteria, library, etc.).

Shared reading of the chosen weekly book took place each day of instruction. Books were either read repeatedly or sectioned into three parts so one book was read over the course of three weekly instructional sessions. Interactive discussions included specific strategy development and practice with weekly target strategies or integration of strategies. For example, children collaboratively retold sections of the book that had been read, and practiced predicting and evaluating their predictions about what might happen next in the story. Specific focus was placed on developing target strategies through multiple examples and applications within and between selected books.
The 30-minute small group activity sessions that immediately followed whole-group instruction were designed to link specifically to the week’s target strategy or strategy integration. Children worked closely with teachers or assistants on these activities such as a school-based scavenger hunt where children made predictions based on evidence and a dramatic retelling of the first part of *The Happy Lion* (Fatio, 2004) (See Table 2 below for complete lesson).

**Table 2. Example of Daily Lesson**

<table>
<thead>
<tr>
<th>Week 4: Day 1: The Happy Lion by Louise Fatio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Strategy: Retelling</strong></td>
</tr>
<tr>
<td><strong>45 Minutes Whole Group</strong></td>
</tr>
<tr>
<td>• Teacher begins with a review of the concept of friendship, using characters and vocabulary from previous books and inviting children’s ideas.</td>
</tr>
<tr>
<td>• Teacher previews vocabulary for today’s reading using cards with pictures and printed words. Children are told to “thumbs up” when they hear the word in the story. The target words are: bandstand, moat, tidbits, as well as French words: bonjour, Monsieur, Madame, and au revoir.</td>
</tr>
<tr>
<td>• Teacher will then read pages 1-7 (ends with lion strolling down path away from zoo).</td>
</tr>
<tr>
<td>• Teacher asks children questions such as: “Do you think the lion is happy in his home in the zoo?” “Would you like the animals in the zoo to come and visit you?”</td>
</tr>
<tr>
<td>• To emphasize the friendship theme, teacher asks about the little boy, Francois.</td>
</tr>
<tr>
<td>• Teacher asks children if they know the meaning of the French words as they hear them in context. If they don’t teacher will explain.</td>
</tr>
<tr>
<td><strong>45 Minutes Small Group</strong></td>
</tr>
<tr>
<td>• Teacher will take a small group of children into the hall and provide them with props like a lion mask, school books for Francois, a hat for the schoolmaster, knitting for Madame Pinson, instruments for the band, and something representing a door for the lion to escape such as a hula hoop.</td>
</tr>
<tr>
<td>• Children will retell the part of the story they have already heard and will describe what they are acting out. They can do this several times, switching roles.</td>
</tr>
</tbody>
</table>

**Measures**

**Child Measures**

To measure comprehension strategy development, the Early Literacy Skills Assessment (ELSA) (Cheadle, 2007), a reliable and valid tool designed to be implemented as a pretest and posttest, was administered. ELSA is different and appropriate in that it is a comprehensive tool that includes measurement of comprehension as a primary early literacy skill measuring four components of early literacy: comprehension, phonological awareness, alphabetic principle, and concepts about print. Each component is reported as a separate score. There is no total score for ELSA, as an aggregate score with a child doing well in one area would overshadow difficulties
in another. Although the entire ELSA was administered, for this investigation, only the comprehension portion of the tool was analyzed (reliability .83 pre; .87 post). Within the comprehension scale, ELSA measures three research-based strategies: connection to life (two questions), prediction (four questions), and retelling (two questions). Scores are determined by the number of relevant ideas a child provides. ELSA is constructed to resemble a children’s storybook with items embedded within the storyline so the child’s experience is that of a one-on-one shared reading with an adult. ELSA was administered pre and post by four graduate level teacher education students from a local university trained to interrater reliability at a level of .92 using the ELSA Training DVD.

Vocabulary was measured using a verbal definition task in which children were asked to tell “what they know about” a target word, and their answers were recorded verbatim. Twenty-one of fifty-six words taught during the unit were randomly selected after being separated into nouns, verbs, and adjectives/adverbs yielding an even distribution of each word type. Children were not tested on all 56 words due to issues related to appropriateness of assessment length for 4-year-old children. Children’s responses on the vocabulary task were evaluated independently for accuracy by two research team members, with an interscorer reliability of .97.

Teacher Measures

Teachers kept response journals (TRJ) documenting their experiences implementing the curriculum. They rated each whole group and small group instructional period by answering three questions on a Likert scale of one to five with five representing highly successful, and one representing not successful at all. Questions were: (a) Were you able to promote understanding of targeted comprehension strategy/s? (b) Did children use targeted or previously taught comprehension strategies successfully? and (c) How interested/involved were children with the activity? In addition, two research team members, trained to use an observation checklist reliably, gathered curriculum fidelity data. Checklist items varied per strategy, and example items included: “Defines the concept of prediction with children and provides a number of examples of predictable events” and “Assists children in making predictions related to real life experiences during small group time.”

What Were the Results of Teaching Comprehension Strategies to Preschool Children?

Pre and Post Comparisons

ELSA was administered to all students before instruction began and again after completion and students’ comprehension strategies were assessed in retelling,
prediction, and connection to life categories. A total comprehension score was generated by combining each individual comprehension category score. Paired samples t-tests were employed to compare students’ comprehension strategy growth over time. Bonferroni corrections were implemented due to use of multiple t-tests and results remained consistent. Number of items was controlled for in total comprehension score analysis with weighted scores. These results indicated a statistically significant difference between total pre- and post-ELSA scores as well as for each individual category (see Table 3).

Table 3. Pre/Post ELSA Comparisons

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prediction</td>
<td>4.61</td>
<td>3.9</td>
<td>7.14</td>
<td>4.09</td>
<td>.005**</td>
</tr>
<tr>
<td>Retelling</td>
<td>2.18</td>
<td>2.4</td>
<td>3.96</td>
<td>5.8</td>
<td>.026*</td>
</tr>
<tr>
<td>Connection to Life</td>
<td>2.82</td>
<td>2.49</td>
<td>4.57</td>
<td>2.96</td>
<td>.005**</td>
</tr>
<tr>
<td>Comprehension Total</td>
<td>9.61</td>
<td>7.38</td>
<td>15.68</td>
<td>7.62</td>
<td>.000***</td>
</tr>
</tbody>
</table>

*- Statistically significant at the $\alpha = .05$ level.
**- Statistically significant at the $\alpha = .01$ level.

Vocabulary

Vocabulary was assessed using a simple definitional task at posttest only, since target words were rare and unlikely to be known. Analyses conducted considered the entire sample as well as comparing data by teacher and word type (noun, verb, adjective). Because only 21 randomly selected words, equivalent numbers of verbs, nouns and adjectives, out of the total 56 learned were tested due to assessment length, scores ranged from one to twenty-one items correct. On average, children learned 11 words each (53.9% correct on the assessment), and their learning was consistent across word type and teacher. Although the simple definitional task used in this exploratory investigation was not a standardized measure, children’s vocabulary growth is encouraging. As a point of comparison, Biemiller & Boote’s (2006) more rigorous review of 13 varied vocabulary instruction studies with children in grades K-2 demonstrated children’s vocabulary grew at a rate of 9% to 26%, depending on particular designs and interventions. When asked about children’s learning of new vocabulary, one of the classroom teachers commented, “The children are making life connections—instead of learning words like listen or look, they are learning harder words. It is amazing and I was worried especially
about words like *phosphorescent*. I was thinking they will never be able to learn those words, and they are still using them.”

**Teacher Response Journals**

Analyses aggregating all question data from Teacher Response Journals (TRJ) indicate teachers felt instruction and student response was highly successful overall, with whole-group instruction being relatively more successful in implementation than small-group instruction. Although this data is self-reported and may be influenced by social desirability, it is clear from a closing focus group session with project teachers (conducted by a third party) that teachers responded positively to the curriculum overall.

Below are a few quotations from teachers in that focus group that reflect how they felt about instruction.

The friendship unit, the whole thing, is so beautiful. It shows about building relationships and they’re learning so much. They talk about everything that was going on in the books and connect it to their lives saying how we wouldn’t do certain things to our friends. We don’t treat our friends that way.

I have noticed right away that they can definitely sequence the events in stories now. They make lots of connections to their real lives. Some stories really brought them into the book and they are now tying the books together and recalling what happens from one book to another.

**Curriculum Fidelity Checklists**

The research team used curriculum fidelity checklists each time they observed in the classroom. These research-based checklists focused on daily target strategies. Overall, teachers implemented curriculum effectively throughout instruction. Results indicate fidelity to curriculum occurred during 95% of the intervention. This reflects an average of the two teacher’s scores with one scoring 94% and the other 96%.

**Discussion**

Results of this curriculum implementation are very encouraging. Hearing children from low socioeconomic backgrounds using advanced vocabulary easily and fluently; understanding how to use evidence to make predictions; knowing the difference between beginning, middle, and end of a story; and recognizing how book content relates to their own lives has demonstrated that they can and do learn
comprehension strategies when provided with relevant and intentional instruction and meaningful experiences. Both observation and implementation results provide reasons to move forward to designing a larger research study encompassing multiple classrooms of diverse children that will include both experimental groups and comparison groups. In particular, a study with a comparison group would provide more rigorous empirical evidence as to the impact of this intervention.

**Implications for Teachers and Teacher Educators**

Research over the past decade indicates that there is critical need to improve the support that preschool teachers receive in emergent language and literacy instruction, both before they enter the classroom and as they develop as professionals (Dickinson & Caswell, 2007). The federal government’s establishment of the Early Reading First (U.S. Department of Education, 2003) program in 2003 demonstrates that this need is especially great for teachers working with prekindergarten children from low socioeconomic backgrounds. Given the importance of effective early literacy instruction, here are some points of consideration for individuals working directly with teachers and teacher candidates:

1. Teacher educators and those conducting professional development at the elementary level would be well served to address the developmental continuum of literacy by beginning with strategies for prereaders, especially the development of comprehension strategies, which are often overlooked.

2. Incorporate research-based training and professional development specifically targeted toward beginning and prereading development, alongside traditional strategies for helping struggling readers as they move through the elementary years.

3. Field observation of teachers and teacher candidates can inform teacher educators about the current comprehension instruction being implemented in prekindergarten classrooms, information that can be used to guide college-level instruction and teacher professional development.

Storybook reading is one of the most common activities in prekindergarten classrooms and presents an excellent opportunity for the intentional teaching of comprehension strategies. For currently practicing teachers of young children, deliberate preparation for strategy instruction during book reading is an important part of the lesson planning process. The following steps are practical suggestions for
teachers of young children as they are planning lessons to implement comprehen-

sion strategy instruction:

1. Select a book in advance with rich illustrations, a well-developed
plot, and several rare words. Understanding vocabulary will con-
tribute to comprehension of the story.

2. Review the book ahead of time to determine opportunities to
engage children in using comprehension strategies such as predic-
tion, retelling, or making connections to their lives and other
books. Keep in mind that you don’t need to wait until the end
of a story in order to ask a retelling question.

3. As you plan, choose a few places in the story to ask open-ended
questions that require the children to give interpretive answers,
rather than “yes/no” answers or answers that can be drawn di-
rectly from the story or illustrations (“What color is Gabriela’s
hat?”). Prediction questions are excellent examples of interpretive
questions (“What are some of the things that Andy might put
in his bag?”).

4. During book reading, encourage relevant discussion and prac-
tice focusing children’s responses on the topic at hand, rather
than allowing the conversation to wander too far from the les-
son’s focus. This is also a good opportunity to ask questions that
require children to make connections outside of the classroom
(“When do you feel scared, Tanisha?”).

Conclusion

The comprehension strategy curriculum implemented in these public
prekindergarten classrooms developed four research-based strategies, and also
taught children to integrate these strategies so they were able to begin interacting
with and understanding stories successfully. The types of strategies that children
learned through these lessons are similar to those used by older children in their
independent reading. In this way, comprehension strategy instruction using stories
read aloud has the potential to lay the foundation for young children’s future
reading skills.

“Waiting to intervene until children are in the third or fourth grade and are
experiencing difficulties with reading comprehension does not seem a viable solu-
tion when we know that achievement gaps are firmly established before children
enter school’ (van Kleeck, 2008, p.628). Comprehension strategy development is crucial for children from all sociodemographic backgrounds, however it can be particularly instrumental for children who have less exposure to shared book reading prior to kindergarten entry. Children who have high quality book sharing experiences in the preschool years bring a wealth of background knowledge and a familiarity with story structure that facilitate future comprehension strategy development. For children who do not have these high quality experiences, it is even more important for these skills to be intentionally fostered in prekindergarten classrooms.

Work focused on comprehension strategy development is an important piece of the puzzle for closing the achievement gap for low SES children (Teale, Paciga, & Hoffman, 2007). This work should help develop teachers’ skills and instructional intentionality and also help give children tools they need to become more competent in comprehension (Neuman, 2006). As one of our teachers said, “The children have really grown in so many areas, and I have grown along with them. I learned something new when the kids were learning. I never thought they could learn all these things, remember them, and use them all the time. It benefited all of us.”

References


DeBruin-Parecki, A. (2009, February). Promoting understanding: Teaching comprehension strategies to prereaders through supported instruction and activity based learning. Paper presented as part of the Annual Early Literacy Institute held at the International Reading Association Conference, Phoenix, AZ.


About the Authors
Dr. Andrea DeBruin-Parecki is associate professor and graduate program director in Early Childhood at Old Dominion University. She is author of the Early Literacy Skills Assessment (ELSA) and the Adult/Child Interactive Reading Inventory (ACIRI), a research-based tool that simultaneously measures interactions of adults and children reading together.

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Grade Level and Gender Differences in a School-Based Reading Tutoring Program

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Abstract

The purpose of the present study is to investigate the grade level and gender differences in a school-based reading tutoring program. The treatment group included 10 first-grade and 12 second-grade struggling readers, and the control group included 41 first-grade and 63 second-grade nonstruggling readers. The tutors were teacher candidates in an elementary education program at a Midwest university. Each student in the treatment group was given four 30-minute tutoring sessions every week for one semester. Results showed that first-grade struggling readers had a significantly higher reading gain than second-grade struggling readers. In addition, first-grade male struggling readers had significantly higher exit Developmental Reading Assessment (DRA) scores than their entry DRA scores, but first-grade female struggling readers did not have significantly higher exit DRA scores than their entry DRA scores.

According to the 2007 National Assessment of Educational Progress (NAEP), 33% of fourth graders read below the basic level for their grade, and 67% of fourth graders read below the proficient level for their grade (Lee, Grigg, & Donahue, 2007). This statistic is of concern for many reasons, among them that students who fail to acquire basic reading skills during early grades are at risk not only for poor academic outcomes but also for problematic behaviors (Elbaum, Vaughn, Hughes, & Moody, 2000). In addition, Federal initiatives such as the America Reads Challenge Act of 1997 and the No Child Left Behind Act of 2001 proposed that all students would read independently by the end of third grade and both initiatives proposed that adult volunteers serve as individual reading tutors for students who were at risk for reading failure.
In a typical classroom, little time is available for individual students to read aloud under the classroom teacher’s direct supervision. This lack of supervised reading time is particularly harmful to struggling readers who desperately need practice in a situation where feedback is available. A number of studies reported one-to-one tutoring as one of the best methods for working with students who were at risk for reading failure (Allor & McCathren, 2004; Hedrick, 1999; Moore-Hart & Karabenick, 2000; Vadasy, Jenkins, Antil, Wayne, & O’Connor, 1997). In fact, one-to-one tutoring was found to increase time on task, ensure instruction at the appropriate level, and afford timely reinforcement and corrective feedback during reading (Wasik & Slavin, 1993).

Research notes important features in successful reading tutoring programs. For example, Wasik (1998) reviewed four one-to-one tutoring programs and identified several common programmatic elements: structured tutoring sessions, ongoing training, regular participation, and supervision of tutors by a qualified professional. Leal, Johnson, Toth, and Huang (2004) identified other elements as important to the effectiveness of one-to-one tutoring: supervision by certified reading specialists, intensive instruction, assessment-based programming, and regular reflective evaluation on the part of the tutor. Morris (2006) reviewed five one-to-one tutoring programs and further found successful elements to include twice-weekly tutoring lessons with guided reading, word study and reading for fluency, and supervision of the tutoring by a knowledgeable reading teacher.

A number of school-based reading tutoring programs are based on these programmatic elements. Allor and McCathren (2004) developed a one-to-one reading tutoring intervention that included a game to teach phonemic awareness and letter-sound correspondence, structured word-study activities, reading of leveled books, and simple comprehension strategies. Hedrick (1999) designed a one-to-one reading tutoring program that included rereading familiar material, reading new material, writing about the new material, and working with words (word identification or vocabulary activities). Moore-Hart and Karabenick (2000) developed a tutoring program that focused on reading and comprehending literature, conducting word building strategies to reinforce knowledge of letter-sound relationships or word recognition activities to reinforce fluency, and engaging in reading/writing activities (i.e., choral readings, readers’ theater, or journal writing). Vadasy, Jenkins, Antil, Wayne, and O’Connor (1997) developed a one-to-one phonologically-based tutoring
program that included letter sounds and beginning sound instruction, rhyming, auditory blending, segmenting, spelling and analogy use, story reading, and writing.

All of these school-based reading tutoring programs used nonprofessionals as tutors and found that the programs had a positive impact on the reading ability of the struggling readers. Allor and McCathren (2004) used minimally trained college students to tutor at-risk first-grade readers over a school year and found significant differences on measures of phonemic awareness, nonsense word reading, and real-word identification between the treatment and control groups. Hedrick (1999) used teacher education students to tutor third, fourth, and fifth graders throughout one school year and noted that students demonstrated measurable progress in reading at the end of the tutoring program. Moore-Hart and Karabenick (2000) had undergraduate students tutor culturally diverse elementary students aged 6 to 10 years old over one school year and their research showed that the reading tutoring benefited all students. Vadasy et al. (1997) used community volunteers to tutor at-risk first graders for one semester and found significant differences between the treatment and control groups on one nonword reading and one spelling measure.

Even though using nonprofessionals as tutors in school-based reading tutoring programs has been shown to be beneficial to struggling readers, little is known about the grade level and gender differences in tutoring programs. Leal et al. (2004) identified differences by grade level and gender in a four-month reading tutoring program. Tutors were undergraduate preservice teachers working on a reading endorsement to add to their licensure and data were collected from six different groups of students over the course of six years. The tutoring included fluency reading, reading aloud, writing, interactive games, and evaluations. Results of this study showed that even though students showed increase in reading skills, no differences were found among grade levels and gender. However, the lack of grade level and gender difference might have been due to the collection of data from six different groups of students over six years.

The purpose of the present study is to further investigate the grade level and gender differences in a school-based reading tutoring program using nonprofessionals as tutors. Specifically, two research questions are asked. First, is there a reading grade level difference in the reading gain of students in a school-based reading tutoring program? Second, does gender make a difference in the reading gain of students in a school-based tutoring program?
With limited resources, policy makers may not be able to provide tutoring programs to all struggling readers at all grade levels. The findings of this study could provide information on the gender and grade level that benefit more from the tutoring programs. Therefore, policy makers may refer to the findings in allocating the limited resources. This information could be critical for policy makers and others who want to develop their own school-based reading tutoring programs.

**Method**

**Participants**

*The School*

The elementary school participating in the present study was located in the urban fringe of a large city in the Midwest. In addition to classes from preschool through grade five, the school served as a magnet school for special education services including gifted and talented education. The school population was approximately 608 students in 2007 and was composed of 77% Caucasian, 10% multiracial, 9% African American, 2% Hispanic, and 2% Asian and half of the students received free or reduced lunches. The school employed 35 teachers and one full time school counselor. In addition to two computer laboratories at the school, there were a couple of computers for students to use in each classroom.

*The Tutees*

Table 1 presents the demographics of the 96 first graders and 94 second graders.

**Table 1. Demographics of the First and Second Graders**

<table>
<thead>
<tr>
<th></th>
<th>First Graders (N = 96)</th>
<th>Second Graders (N = 94)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>58</td>
<td>49</td>
</tr>
<tr>
<td>Female</td>
<td>38</td>
<td>45</td>
</tr>
<tr>
<td><strong>Lunch Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free/Reduced Lunch</td>
<td>63</td>
<td>45</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
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<tr>
<td>Caucasian</td>
<td>70</td>
<td>76</td>
</tr>
<tr>
<td>African American</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Multiracial</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Hispanic</td>
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<td>3</td>
</tr>
<tr>
<td>Native American</td>
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<td>0</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
At the beginning and end of the school year, all first and second graders were given the Developmental Reading Assessment (DRA) (Beaver, 2003). Forty-nine first graders (51%) and 24 second graders (26%) had reading scores below their grade levels. Twenty (41%) of these 49 first graders and 13 (54%) of these 24 second graders with the lowest DRA scores were selected for the tutoring program by their teachers to receive supplemental reading tutoring for one semester in addition to regular classroom instruction on reading. Among the 20 first graders, four were on Individual Education Plans (IEP), three moved to another school, and three had incomplete DRA scores and among the 13 second graders, one moved to another school. Since students on an IEP received additional instruction from special education services, their DRA scores were not included in the present study even though they remained in the tutoring program. Those students who moved anytime after the start of the tutoring program were also excluded. Students with incomplete scores were those who replaced the students who had moved, and their DRA scores were also excluded. Therefore, 10 first graders and 12 second graders with complete data were included in the treatment group. Forty-one first graders and 63 second graders who did not participate in the tutoring program were included in the control group.

The Tutors

The tutors were teacher candidates in the Elementary Education Program at a university also located in the Midwest. They were required to take their first undergraduate field experience as part of the course Educational Psychology and Child Development. In addition to classroom observation and journal writing, the tutoring program was part of the course requirements in their field experience. All teacher candidates successfully completed the tutoring program. The teacher candidates were randomly assigned to tutor students at different grade levels. There were 41 teacher candidates (8 male and 33 female) tutoring first graders and 34 teacher candidates (4 male and 30 female) tutoring second graders in the present study.

The School-Based Reading Tutoring Program

The tutoring program was initially designed by two teachers from the participating school and the reading specialists from the local school district. They used the state standards and school curriculum as the basis of the program. Teacher candidates attended a one-hour introductory session at the beginning of the semester to
learn how to implement the tutoring program. This session included the principal of the participating school providing an overview of the program, two teachers who designed the tutoring program discussing the instructional materials, and two reading specialists who designed the tutoring program introducing reading activities and tutoring techniques to teacher candidates.

The program focused on reading fluency, reading comprehension, building vocabulary, and practicing writing. Specifically, the structure of the first-grade program included reading a book, talking about main idea, plot, characters, and checking comprehension, reviewing unfamiliar words, writing a sentence about the story, putting the sentence in correct word order, and practicing sight words. The structure of the second-grade program included reading a story, answering comprehension questions, learning unfamiliar words in the story, practicing sight words and using them to make sentences, and writing letters to their teachers about something they read or learned that week.

The two schoolteachers who served as program coordinators were available the first time the teacher candidates conducted a tutoring session and generally modeled at least one session for each teacher candidate. A tutoring manual available for reference contained sample lesson plans for first and second graders and the program coordinators prepared a folder with the weekly tutoring materials for each student. At the end of each session, teacher candidates wrote their comments on student progress and assessed the students’ reading, comprehension, and writing. The teacher candidate who came the next day to tutor the same student read the comments and decided where to start the next session. The program coordinators reviewed each student’s folder to check progress and put new tutoring materials in the folders for the following week. Each student received 30 minutes of individual reading tutoring from Monday through Thursday for one semester. The teacher candidates provided 30 minutes of individual tutoring each week to two different students. Therefore, each student received a weekly total of two hours of one-to-one tutoring provided by four different teacher candidates and every teacher candidate provided 60 minutes of tutoring divided equally between two students each week.

**Instrument**

The Developmental Reading Assessment (DRA) (Beaver, 2003) is a criterion-referenced test with no normative data, and the test-retest reliability statistics range from .92 to .99. For the purposes of this study, the DRA was administrated in a
one-to-one conference between the classroom teacher and the first- or second-grade student at the beginning and end of the school year as required by the school district. The teachers received DRA training previous to the study and all had prior experience in administering the assessment. The administration of the DRA began with the teacher or the student selecting a book that was at or near the student’s level. The teacher introduced the selected text and asked the student to predict its outcome based either on an examination of the illustrations or from reading the beginning paragraphs aloud. The next step in the assessment was to have the student read aloud and retell the story. Finally, the teacher asked the student about her/his reading preferences, such as who read to her/him and what stories s/he liked to hear.

During the conference, the teacher made written observations about the student’s responses and behaviors during the following activities: previewing and predicting, oral reading and strategies used, comprehension and response, and reading preferences. At the end of the conference, the teacher took the DRA continuum form associated with the selected text, and completed it with a rubric to describe the different levels of reading engagement, oral reading fluency, and comprehension. Using a list of pertinent statements, the teacher circled those that best described the results from the conference. After examining the pattern of circled statements, the teacher translated students’ scores into reading levels and identified their strengths and weaknesses. The reading levels as defined by the DRA are presented in Table 2.

Table 2. Reading Level of the Developmental Reading Assessment (DRA) (Beaver, 2003)

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Reading Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>1-2</td>
</tr>
<tr>
<td>Grade 1</td>
<td></td>
</tr>
<tr>
<td>Pre-Primer</td>
<td>3-8</td>
</tr>
<tr>
<td>Primer</td>
<td>10</td>
</tr>
<tr>
<td>Grade level</td>
<td>12-16</td>
</tr>
<tr>
<td>Grade 2</td>
<td>18-28</td>
</tr>
<tr>
<td>Grade 3</td>
<td>30-38</td>
</tr>
<tr>
<td>Grade 4</td>
<td>40</td>
</tr>
<tr>
<td>Grade 5</td>
<td>50</td>
</tr>
<tr>
<td>Grade 6</td>
<td>60</td>
</tr>
</tbody>
</table>
Results

Unless noted otherwise, a significant level of \( p < .05 \) was used on all statistical tests in this study. Table 3 presents the means and standard deviation of the entry and exit DRA scores by gender and group.

Table 3. Means and Standard Deviations of the Developmental Reading Assessment (DRA) by Gender, Grade levels, and Score (\( N = 125 \))

<table>
<thead>
<tr>
<th>Entry</th>
<th>Exit</th>
<th>Total</th>
<th>Reading Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>First-Grade Tutored</td>
<td>2.55 (2.03)</td>
<td>17.20 (3.16)</td>
<td>10.20 (2.73)</td>
</tr>
<tr>
<td>Male (n = 8)</td>
<td>2.81 (2.20)</td>
<td>16.50 (2.33)</td>
<td>9.66 (2.27)</td>
</tr>
<tr>
<td>Female (n = 2)</td>
<td>1.50 (.71)</td>
<td>20.00 (5.66)</td>
<td>10.75 (3.19)</td>
</tr>
<tr>
<td>First-Grade Nontutored</td>
<td>7.65 (8.43)</td>
<td>18.61 (5.70)</td>
<td>13.08 (6.42)</td>
</tr>
<tr>
<td>Male (n = 20)</td>
<td>4.45 (4.06)</td>
<td>17.60 (5.05)</td>
<td>11.03 (4.56)</td>
</tr>
<tr>
<td>Female (n = 21)</td>
<td>10.69 (10.31)</td>
<td>19.57 (6.22)</td>
<td>15.13 (8.27)</td>
</tr>
<tr>
<td>Second-Grade Tutored</td>
<td>11.83 (4.22)</td>
<td>19.83 (7.00)</td>
<td>15.83 (5.34)</td>
</tr>
<tr>
<td>Male (n = 6)</td>
<td>12.00 (4.20)</td>
<td>22.67 (3.93)</td>
<td>17.33 (4.07)</td>
</tr>
<tr>
<td>Female (n = 6)</td>
<td>11.67 (4.63)</td>
<td>17.00 (8.56)</td>
<td>14.33 (6.60)</td>
</tr>
<tr>
<td>Second-Grade Nontutored</td>
<td>24.23 (6.66)</td>
<td>33.10 (7.48)</td>
<td>28.70 (7.13)</td>
</tr>
<tr>
<td>Male (n = 28)</td>
<td>24.57 (7.07)</td>
<td>33.71 (7.48)</td>
<td>29.14 (7.28)</td>
</tr>
<tr>
<td>Female (n = 34)</td>
<td>23.94 (6.39)</td>
<td>32.59 (7.56)</td>
<td>28.27 (6.98)</td>
</tr>
</tbody>
</table>

Reading Scores by Gender and Group

The DRA scores were analyzed in a 2 (score: entry, exit) x 2 (gender: male, female) x 4 (group: first-grade tutored, first-grade nontutored, second-grade tutored, second-grade nontutored) mixed Analysis of Variance (ANOVA), with score as a within-subjects factor, gender and group as between-subjects factors. Results showed a main effect of score, \( F(1, 117) = 314.614, p < .001 \), partial \( \eta^2 = .729 \), and a main effect of group, \( F(3, 117) = 61.398, p < .001 \), partial \( \eta^2 = .612 \). However, there was no main effect of gender, \( F(1, 117) = .039, p = .843 \), partial \( \eta^2 = .000 \).

There was an interaction between score and group, \( F(3, 117) = 6.1, p = .001 \), partial \( \eta^2 = .135 \). Further pair-wise comparison using a Bonferroni correction showed that all groups had higher exit DRA than entry DRA scores. No interaction
was found between score and gender, $F(1, 117) = 1.135, p = .289$, partial $\eta^2 = .01$, or between group and gender, $F(3, 117) = 1.673, p = .177$, partial $\eta^2 = .041$. However, there was an interaction between score, group and gender, $F(3, 117) = 2.961, p = .035$, partial $\eta^2 = .071$. Further pair-wise comparison using a Bonferroni correction showed that first-grade tutored male students had a higher exit DRA score ($M = 16.50, SD = 2.33$) than entry DRA score ($M = 2.81, SD = 2.2$). All first-grade nontutored students had higher exit DRA scores (Male: $M = 17.60, SD = 5.05$; Female: $M = 19.57, SD = 6.22$) than entry DRA scores (Male: $M = 4.45, SD = 4.06$; Female: $M = 10.69, SD = 10.31$). All second-grade nontutored students had higher exit DRA scores (Male: $M = 33.71, SD = 7.48$; Female: $M = 32.59, SD = 7.56$) than entry DRA scores (Male: $M = 24.57, SD = 7.07$; Female: $M = 23.94, SD = 6.39$). All second-grade tutored students, male or female, did not show difference between entry and exit DRA scores.

Entry and Exit Reading Scores by Gender and Group

Further analyses were done to compare the entry and exit DRA scores separately. A 2 (gender: male, female) x 4 (group: first-grade tutored, first-grade nontutored, second-grade tutored, second-grade nontutored) factorial Analysis of Variance (ANOVA) was conducted to compare the entry DRA scores by gender and group. There was a main effect of group, $F(3, 117) = 61.957, p < .001$, partial $\eta^2 = .614$. Further pair-wise comparison using a Bonferroni correction showed that second-grade nontutored students had a higher DRA entry score ($M = 24.23, SD = 6.66$) than second-grade tutored ($M = 11.83, SD = 4.22$), first-grade nontutored students ($M = 7.65, SD = 8.43$), and first-grade tutored ($M = 2.55, SD = 2.03$). Second-grade tutored students also had a higher DRA entry score ($M = 11.83, SD = 4.22$) than first-grade tutored students ($M = 2.55, SD = 2.03$). However, there was no main effect of gender, $F(1, 117) = .306, p = .582$, partial $\eta^2 = .003$, or interaction between gender and group, $F(3, 117) = 2.335, p = .077$, partial $\eta^2 = .056$.

In addition, a 2 (gender: male, female) x 4 (group: first-grade tutored, first-grade nontutored, second-grade tutored, second-grade nontutored) factorial Analysis of Variance (ANOVA) was conducted to compare the exit DRA scores by gender and groups. There was a main effect of group, $F(3, 117) = 47.063, p < .001$, partial $\eta^2 = .547$. Further pair-wise comparison using a Bonferroni correction showed that second-grade nontutored students ($M = 33.10, SD = 7.48$) had a higher DRA exit score than second-grade tutored ($M = 19.83, SD = 7.00$), first-grade
nontutored ($M = 18.61, SD = 5.7$), and first-grade tutored students ($M = 17.20, SD = 3.16$). However, there was no main effect of gender, $F(1, 117) = .035, p = .851$ partial $\eta^2 = .000$, or interaction between gender and group, $F(3, 117) = 1.305, p = .276$, partial $\eta^2 = .032$.

**Reading Gain by Gender and Group**

Table 3 also presents the means and the standard deviation of the reading gain between the entry and exit DRA scores by gender and group. A 2 (gender: male, female) x 4 (group: first-grade tutored, first-grade nontutored, second-grade tutored, second-grade nontutored) factorial Analysis of Variance (ANOVA) was conducted to compare the gain between entry and exit DRA scores by gender and groups.

There was a main effect of group, $F(3, 117) = 6.1, p = .001$, partial $\eta^2 = .135$. Further pair-wise comparison using a Bonferroni correction showed that first-grade tutored students had a significant gain of DRA score ($M = 14.65, SD = 4.57$) over second-grade tutored ($M = 8.00, SD = 5.46$) and second-grade nontutored students ($M = 8.87, SD = 4.27$). However, there was no main effect of gender, $F(1, 117) = 1.135, p = .289$, partial $\eta^2 = .01$. There was an interaction between gender and group, $F(3, 117) = 2.961, p = .035$, partial $\eta^2 = .071$. Further pair-wise comparisons using a Bonferroni correction showed that first-grade nontutored male students showed a significant higher gain of DRA scores ($M = 13.15, SD = 3.86$) than first-grade nontutored female students ($M = 8.88, SD = 6.28$).

**Discussion**

The purpose of the present study is to investigate the grade level and gender differences in a school-based reading tutoring program. Specifically, two research questions are asked. First, is there a reading grade level difference in the reading gain of students in the school-based reading tutoring program? Second, does gender make a difference in the reading gain of students in a school-based tutoring program?

**Grade Level Difference**

All students in the first- and second-grade, tutored or nontutored, showed significantly higher exit DRA scores than their entry DRA scores. No matter which grade students were in and whether or not students were in the school-based reading tutoring program, their reading scores were higher at the end of the school year.
than at the beginning of the school year. Different factors may be involved in raising the DRA scores of all of the first and second graders, such as maturation, classroom reading instruction, reading tutoring program, and family reading environment. The regular reading activities throughout the school year seemed to be sufficient to improve the reading of nontutored students. However, without the tutoring program, there may not have been an increase in the exit DRA scores of struggling readers. The tutoring program and the regular reading activities seemed to improve the oral reading fluency and comprehension of struggling readers as measured by the DRA.

With a closer look at the increased DRA scores at the end of the school year, the first-grade tutored students had a significantly higher reading gain than second-grade tutored students. Even though the entry DRA scores of first-grade tutored students were significantly lower than those of second-grade tutored students, the gain in the exit DRA scores of first-grade tutored students did not significantly differ from those of second-grade tutored students at the end of the school year. It appears that the first-grade struggling readers benefited more than second-grade struggling readers from the early school-based reading interventions.

The critical role of first grade in reading acquisition, together with the one-to-one reading tutoring program, seemed to contribute to the significant reading gain of these first-grade struggling readers. Many children in the first grade begin to develop metalinguistic awareness (Woolfolk, 2010), their understanding of how language works becomes explicit, and they are able to study and extend the rules of language. This study supports the idea that the development of language knowledge and the assistance of tutoring programs are invaluable to first-grade struggling readers.

The high reading gain of the first-grade tutored students over second-grade tutored students does not mean that early school-based reading interventions do not benefit second-grade struggling readers. In fact, the entry and exit DRA scores of second-grade tutored students were significantly lower than those of second-grade nontutored students. However, there was no difference between the reading gain of second-grade tutored and second-grade nontutored students. Even though the second-grade struggling students started with lower entry scores and ended with lower exit scores than second-grade nonstruggling students, the school-based reading interventions did appear to help the second-grade struggling students achieve reading gains similar to second-grade nonstruggling students. Therefore, the tutoring
program did improve the reading of second-grade struggling readers, but to a lesser extent than their first-grade counterparts.

In response to the first research question, the present study found grade level difference in the reading gains between first-grade tutored students and second-grade tutored students as the first-grade tutored students had a significantly higher reading gain than second-grade tutored students.

**Gender Difference**

All first- and second-grade nontutored students, male or female, showed significantly higher exit DRA scores than their entry DRA scores, therefore no gender difference was found among nontutored students. Regular classroom reading activities seemed to work the same for both male and female students. On the other hand, no difference was found between the entry and exit DRA scores in second-grade tutored male and female readers. The tutoring program did not seem to be of specific benefit to second-grade male or female students. Even though the exit DRA scores were higher than the entry DRA scores, the difference was not large enough to be significant. The insignificant difference between the entry and exit DRA scores in tutored students may be due to the small number of participants as there were only six second-grade male, and six second-grade female struggling readers.

A gender difference was found between first-grade male and female struggling readers. First-grade male struggling readers had significantly higher exit DRA scores than their entry DRA scores, but first-grade female struggling readers did not have significantly higher exit DRA scores than their entry DRA scores. Consequently, early school-based reading interventions seem to benefit first-grade male struggling students more than first-grade female struggling students. There have been a greater number of males with reading problems reported in a number of studies (Limbrick, Wheldall, & Madelaine, 2008; Rutter et al., 2004). Hawke, Olson, Willcut, Wadsworth, and DeFries (2009) pointed out that greater variance of reading performance in males may account for their higher prevalence of reading difficulties. With lower reading scores, male struggling readers are likely to show greater improvements with reading intervention. The greater variance of reading performance in males (Hawke et al., 2009) may account for their better response to tutoring programs.

In addition to entry and exit DRA scores, a better picture of gender difference in the school-based tutoring program is to look at the reading gains. No difference was found between the reading gain of second-grade male and female students,
Regardless of whether they were in the tutoring program or not. Regular classroom reading activities and participation in the tutoring program had the same impact on the reading gains of all second-grade male and female students. Also, no difference was found between the reading gain of first-grade tutored male and female students. Although first-grade tutored male students showed significantly higher exit DRA scores than their entry DRA scores, their reading gain was the same as first-grade tutored female students.

Another gender difference in reading gains was found between first-grade nontutored male and female students. First-grade nontutored male students showed a significantly higher reading gain than first-grade nontutored female students. Classroom reading activities benefited first-grade nonstruggling male students more than first-grade nonstruggling female students.

In response to the second research question, the present study found that gender played a part in the difference between the reading scores of first-grade tutored male and female students. First-grade male struggling readers had significantly higher exit DRA scores than their entry DRA scores, but first-grade female struggling readers did not have the same.

**Implications for Reading Tutoring Programs**

**Reading Intervention Should Start Early**

The present study found a grade level difference in individual success in the school-based reading tutoring program. Specifically, first-grade tutored students had a significantly higher reading gain than second-grade tutored students. This research supports the idea that school-based reading interventions should start as early as first grade, if not before. To receive federal funding for the schools, students in American public schools are required to take state achievement tests. For example, students in Indiana take the Indiana Statewide Testing for Educational Progress-Plus (I-STEP+) which includes English and math from grades 3-8, science from grades 4 and 6, and social studies from grades 5 and 7 (Indiana Department of Education, 2011). Illinois requires the Illinois State Achievement Test (ISAT) that includes reading and math from grade 3-8, and science from grades 4 and 7 (Illinois State Board of Education, 2011). Students in Ohio take the Ohio Achievement Test that includes reading and math from grades 3-8, science and social studies from grade 5 and 8, and writing from grade 4 and 7 (Ohio Department of Education, 2011). Even
though state achievement tests do not start until grade 3 in these states, school-based reading interventions should start as early as first grade so that the biggest reading gains can be achieved well before the state achievement tests.

In fact, Reading Recovery, an early intervention program to help low-achieving first graders to learn to read, reported that approximately 75% of students who completed the full 12- to 20-week individualized intervention could meet grade-level expectations in reading and writing (Reading Recovery Council of North America, 2010). The success of Reading Recovery is encouraging, but the cost of providing one-to-one reading intervention to all first graders by a specially trained Reading Recovery teacher is discouraging.

To help struggling first graders to read, a school-based reading tutoring program may be an alternative to the Reading Recovery program. Even though the described school-based reading tutoring program does not provide sustained individualized intervention by trained reading specialists, the one-to-one support and instruction may be the more crucial component to the reading improvement of struggling readers. However, important features suggested by successful reading tutoring programs (i.e., Leal et al., 2004; Morris, 2006; Wasik, 1998) should be considered when developing a school-based reading tutoring program designed to benefit struggling readers.

**Male Struggling Readers Benefit More from Early Intervention**

The present study also found a gender difference in the effectiveness of this school-based reading tutoring program. Specifically, first-grade male struggling readers had significantly higher exit DRA scores than their entry DRA scores, but first-grade female struggling readers did not have the same benefit. Since first-grade male struggling students benefited more than first-grade female struggling students, school-based reading interventions may target male struggling readers to gain higher reading scores. If limited resources are available to school-based tutoring programs, priority might be given to first-grade male struggling readers who need one-to-one instruction.

**The Use of Teacher Candidates as Tutors**

The present study found an increase of exit DRA scores of struggling readers at the end of a school-based tutoring program. Specifically, all tutored students in the first- and second-grade showed significantly higher exit DRA scores than
their entry DRA scores. With such a promising result from using teacher candidates as tutors in the school-based tutoring program, teacher educators may want to incorporate this idea when they design the field experience or practicum for teacher candidates. Not only will a school-based tutoring program benefit struggling readers, it will also provide an opportunity for teacher candidates to explore their passion for teaching and practice their knowledge of pedagogy and reading assessment and instruction.

Limitations of the Study

Even though the present study found grade level difference in the reading gains between first-grade tutored students and second-grade tutored students, and gender differences between the reading scores of first-grade tutored male and female students, there are a number of limitations to be considered in applying these findings.

First, there were confounding variables attributing to the reading gains. The DRA test was administered at the beginning and the end of the school year, but the tutoring program only lasted for one semester. What happened between the end of the tutoring program and the administration of the exit DRA test may have confounded the findings of the present study. The differences between the entry and exit scores of the tutoring group may have not come solely from the tutoring program.

Second, there were a small number of students in the tutoring program as there were only eight male and two female first graders and six male and six female second graders in the tutoring program. With such a small number of students in the tutoring program, even though the differences of the reading scores seem very big, it may not be statistically significant. To reach significant difference, the reading scores have to be very far apart.

Third, there were four tutors tutoring each student. Even though the intervention materials were the same for all tutored students, different tutors may have delivered the materials differently. Thus, the integrity of the tutoring program poses another concern.

Recommendations for Future Studies

With a promising result of using nonprofessionals as tutors in school-based reading tutoring programs, more studies should be conducted to inform those who
would like to develop their own school-based reading tutoring programs. First, if first-grade struggling readers improved more than second-grade struggling readers, would kindergarten struggling readers improve more than first-grade struggling readers? Second, if first-grade male struggling readers responded the best to school-based tutoring programs, would first-grade female struggling readers respond better to different types of reading intervention?

**Conclusions**

The present study supports the federal initiatives for school-based reading tutoring programs recruiting adult volunteers as individual reading tutors for struggling readers at elementary schools. The promising findings of the present study may encourage more schools to develop their own school-based reading tutoring programs and seek volunteers as individual reading tutors from the community or local higher education institutions. Teacher educators may also consider using teacher candidates as tutors when they design their field experiences. When considering the best use of resources to develop school-based reading tutoring programs, it is important to consider the grade level and gender of struggling readers. The school-based reading tutoring program should also start early since first-grade struggling students had a significantly higher reading gain than second-grade struggling students. In addition, priority should be given to first-grade male struggling readers since they had significantly higher exit DRA scores than their entry DRA scores.
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### About the Author

Sau Hou Chang is an Assistant Professor in Educational Psychology at Indiana University Southeast. She teaches Educational Psychology and Child Development, and supervises field experiences. Her current research focuses on the application of cognitive psychology to education, supporting struggling readers, and professional development of teacher candidates.
A fifteen-year-old Massachusetts girl whose family recently moved to the South Hadley area from Ireland hangs herself in 2010 after enduring weeks of bullying from classmates. An eighteen-year-old Rutgers student leaps from the George Washington Bridge in 2010. Two eleven-year-old boys take their own lives, one in Oklahoma in 2010 by shooting himself, the other in Massachusetts in 2009 by hanging. All four were apparently the victims of severe bullying; in the case of one eleven-year-old, his classmates heckled him constantly about their perceptions of his sexuality (Anti-Bullying Resources, 2011). Finally, the White House holds a Conference on Bullying Prevention in March, bringing much needed attention to the issue of bullying (White House Conference on Bullying Prevention, 2011).

Although some might consider bullying to be a 21st century problem, bullying seems to have been tolerated for decades, with adults often dismissing it through comments such as “Well, boys will be boys,” and “Sticks and stones may break your bones, but words can never hurt you,” or even “Girls don’t fight each other. They wouldn’t want to mess up their clothing.” Early on, perennial middle and high school favorite author Judy Blume addressed the cruelty kids direct toward other kids in her book *Blubber* (1974) in which a fifth grader endures denigrating comments and nicknames after doing a report on whales.

Bullying frequently starts with name calling or subtle shunning, often escalating to threatening, pushing, or shoving. While much bullying occurs in the classroom or on school grounds, bullies may repeatedly stalk their victims on their way to and from school, and might continue through ever-increasing cyber bullying. Researchers now acknowledge that females can be every bit as cruel as boys can (Wiseman, 2002) but their cruelty comes in different forms. In her *Queen Bees & Wannabees: Helping Your Daughter Survive Cliques, Gossip, Boyfriends, and Other Realities of Adolescence* Wiseman (2002) describes many of the cruel ways girls ostracize or bully one another.

The statistics are daunting. A report released by the Center for Disease Control (CDC Releases 2009 Youth Risk Behavior Survey Results, 2010) shows that about one in five teens had been bullied at school in the last year. The
government’s Find Youth Info web site (Find Youth Info, 2011) also reports some recent bullying statistics:

1. Bullying is most common among middle school children, where almost half of students may be bully victims.
2. Between 15 and 25 percent of students overall are frequent victims of bullying, and 15 to 20 percent of students often bully others.

Further, despite the potential damage of cyber bullying, it is alarmingly common among adolescents and teens. According to cyber bullying statistics from the i-SAFE foundation (i-SAFE, 2009), more than half of adolescents and teens have been bullied online, and about the same number have engaged in cyber bullying.

Concerned with school bullying, former English teacher C. J. Bott has written two books that list books for children and young adults with bullying as their central theme. The first title, The Bully in the Book and in the Classroom (2004) describes 44 fiction books for young readers and her second title, More Bullies in More Books (2009) contains 350 annotations. Bott repeatedly discusses that as is the case with many issues, bullying is a societal problem that can be addressed through literature. Interestingly, bullies in various forms appear in more books than might be expected. During the last months of 2010 and the first part of 2011, as we read fiction for children and adolescents, we kept a list of books that either featured bullies or in which bullying played a pivotal role. We were surprised to find that there were bullies in many of the books we read. Here are some of the most recent titles with bullies that might offer starting places for classroom conversations on this often life-changing issue.

**Grades K-2**


Henry and the other first graders loved to play soccer at recess until a second grader named Sam kicked their ball over the fence. After recess, Henry told his teacher what had happened, and the teacher, Mr. McCarthy, agreed to “keep an eye on Sam and the second graders” (u.p.). The next day while Mr. McCarthy was rescuing a kindergartner, “Sam grabbed Henry’s tail just as he was about to score” (u.p.). It seemed that every time the teacher
was helping someone else the bullies would appear. Henry became “miserable and his tummy hurt” (u.p.) Is there any possible way to turn an enemy into a friend?

After moving from Mexico, Carmen is afraid that her classmates will laugh at her as she tries to learn and speak English at school as everyone speaks so rapidly. Carmen cannot understand a thing until her teacher, Ms. Coski, begins to talk to her in “muy terrible” Spanish. This gives Carmen courage that her “muy terrible” English might be accepted. There are times when schoolyard bullies taunt her and say, “You gotta funny accent” (u.p.). Such taunting hurts her feelings and makes her wish she were back “in Mexico, where all the people speak Spanish and no one makes fun of me” (u.p.). Ultimately, Ms. Coski gives Carmen confidence when she asks her to teach her classmates how to speak Spanish.

Kimmelman cleverly transforms the traditional “Three Billy Goats Gruff” into a new story that features Gruff, Ruff, and Tuff, the three bully goats. One day the goats realize that the meadow on the other side of the bridge is even grassier than their own. A small, kind ogre guards the bridge leading to the meadow so he can warn visitors to watch out for the wild flowers and baby animals. The goats, however, are not friendly to the little ogre. For instance, the smallest bully goat challenges him with “I’m Gruff, and I mean, I’m really gruff. And you, you’re just a powder puff. Now stop squawking, or I’ll butt you from here to Brazil” (u.p.). Yet, the friendly ogre and some baby animals find a way to teach the bullies a lesson they will not forget.

Camilla Capybara is back from the West. “And [she has] the hat and the top-of-the-line boots to prove it!” she bellows. She quickly reminds her frightened
rodent classmates, “I’m still the World’s Meanest Rodent” (u.p.). Sadly, “the rattled rodents and twitching teacher had to live with Camilla and all her shenanigans” (u.p.). Yet, Camilla’s return is not the only surprise for Wodney and his friends. Wodney uses his birthday present, a tewiffic talking wobot, to find a way to handle the bigger, badder, and meaner Camilla Capybara.


Carly loves playing with her older sister Sandy. “They played dragons and knights. They played explorers and pirates. They played mountain climbers and astronauts” (u.p.). Life was good before Lily Jean moved next door. Lily Jean didn’t want Carly to play with Sandy and her. When they played house, Lily Jean insisted that Carly be the baby. When they played cowgirls, Lily Jean demanded that Carly be a cow. When they played King and Queen, Lily Jean made Carly be the dog. Tired of being bossed around, Carly comes up with a plan. Will it be enough to change mean Lily Jean into a friend?


Because she suffers from hip dysplasia, Meggy has crooked legs and waddles rather than walks. Although she is fair of face, she is not fair of gait, and the townspeople of London call her names, want to label her a witch, and blame her when things go wrong. Having left her country home to help her father, an alchemist in London, Meggy now lives with
a parent she had never even met before. He, in turn, has no idea what to do with her and calls her “Mistress” rather than her name. Set during the Elizabethan period, this story provides rich details that bring the time and its citizens to life while reminding readers that prejudice and bullying are often based on mere physical differences. While Meggy tries to assist her father, she must first counteract his involvement in a treasonous plot.


Laura Horton, 14, has never really fit in with her classmates. She lives in a crumbling mansion on the top of a hill where her father quotes Longfellow, and her mother creates sculptures. When a new classmate, Leon Murphy, draws negative attention from her classmates, Laura must decide whether to befriend him or bow to peer pressure. Laura is drawn to Leon, a math whiz, as the two try to solve the mystery behind the house where she lives. As she connects strongly with Leon, Laura also wants acceptance from her classmates and she is torn, afraid to be seen with Leon because of what the others will say.


Operation Pedro Pan involved 14,000 children leaving Cuba without their parents in 1961 due to the revolution that put Fidel Castro in power. Parents feared their children would be “re-educated” in Communist camps so they sent them to the US to live in refugee camps until they could be reunited as a family. *90 Miles to Havana* is the story of three brothers and their experiences in one of the camps near Miami. Julian and his brothers Alquilino and Eduardo are shocked to find bullies running rampant in the camp. Eventually Alquilno and Eduardo are moved to an orphanage in Colorado. Julian runs away after he humiliates the camp bully but rejoins Tomás on a dangerous mission to rescue 14 people from Cuba.

When David Greenberg starts middle school, things fall apart. A silly argument prompts his former best friend Elliott to ally himself with an older bully who mounts a daily assault on David. While life at school continues to worsen, David inexplicably receives lots of attention online for some amusing videos he posts of his hamster Hammy and his sister Lindsey with the Daily Acne Forecast. Middle school is not easy when your best friend has deserted you and is telling all your secrets to your enemy. This book is filled with many humorous moments, but the feelings of isolation David experiences are very real.


Fresh from studying how the popular kids behave, best friends Julie and Lydia are ready to take junior high by storm. But Lydia’s unexpected move with her family to London for six months leaves Julie lonely and confused. While Lydia encounters language challenges with British slang, school uniforms, and cliques that ignore her, Julie finds herself befriended by the exclusive Bichons, an eighth grade group that rules the school halls. Thrilled at first to have popular friends, Julie becomes increasingly uncomfortable as the group, led by Della Dawn, pokes fun at her former friends as well as tries to change Julie’s appearance. When she realizes that they also shoplift, she vows to stand up for herself. Clearly, Della’s interest in Julie is related to her friendship with blue-eyed skateboarder Jonathan. But Julie can’t see that at first. Lydia, meanwhile, is thrilled at the inroads to popularity Julie is making, but takes another path overseas, founding the Outcasts, a group of unique youngsters ignored or teased by the popular set in her school. The author favors different fonts, pen colors, artistic styles and writing styles in this graphic novel that amplifies the voices of two very different, but determined girls. This title is the follow-up to last year’s introduction to the two girls.

*Addie on the Inside* is a companion book to *The Misfits* (Howe, 2001) and *Totally Joe* (Howe, 2005). Everyone in middle school seems to have a label for Addie; the name-calling does not stop. They label her for what and who they see on the outside, but none of the girls in her school have a clue about how she feels on the inside. She is willing to stick up for her friends and for what she believes and Addie is not afraid to show her intelligence and her vocabulary. Howe takes us into Addie’s mind in this riveting novel in verse.

How can I be all that?
It’s too many things to be.
How can I be all that and
still be true to the real me
while everyone is saying:

This
is
who
you
are. (p. 53)

Those who have read Howe’s earlier books will welcome the opportunity to reconnect with Bobby, Joe, Addie, and Skeezie, possibly drawing inspiration from Addie’s example.

As conditions worsen in Afghanistan, eleven-year-old Fadi and his family flee their home. Through a series of mistakes, Fadi’s little sister Mariam is left behind. Although the family settles in San Francisco, the destruction of the Twin Towers prompts much prejudice toward Fadi as well as bullying from some of his schoolmates. Fadi is reluctant to tell anyone about the bullying, and unrealistically focuses on winning a photography contest in order to win a trip back home. When the bullies destroy his camera, he almost loses all hope, but finds a sympathetic spirit in another classmate.


Eighth grader Tod Munn is a bully who terrorizes his classmates, making them give up their lunches and money in exchange for his protection. But is he really the bully and loser his teachers and classmates seem to think he is? After sneaking into the school, Tod is forced to serve his detention with Mrs. Woodrow, the school guidance counselor, while his cohorts pick up trash in the school yard in lieu of harsher punishment. During the next two months, Tod writes about his life at the insistence of the guidance counselor, revealing that there are reasons for his actions, and what appears to be the truth may indeed hide the real truth. His journal describes an especially challenging home life and missteps by others that lead to his own bitterness. Spanning October to December in his life, Tod’s story reveals the intricate layers to one human being, and leaves readers hoping for the best for Tod.

Life isn’t too great for seventh grader Marley Sandelski. He manages to fly under the radar, barely noticed by those around him. But one day, class bully Digger Ronster notices him and chooses Marley as his personal punching bag. Suddenly he is all too visible. He spends his afternoons running from Digger and his friends, all intent on bullying Marley, and dreaming of his childhood days spent sharing comic books with Stanford Wong, the school basketball star who now barely notices him. The school track coach pays positive attention to Marley, and encourages him to join the track team. The book is filled with humor and pathos and depicts perfectly the fear that bullies instill in the hearts of others. When Marley finally stops running and faces his tormentor, he is in for a surprise.

**Grades 9-12**


At the end of eighth grade, Lauren Wood betrays her best friend Helen Worthington and makes it seem that Helen caused others to be punished for a senior prank. Helen’s treatment from her classmates is so horrid that she moves to a new school. A few years later, she returns to live with her grandmother assuming the name Claire Dantes. In the meantime, Lauren has risen to her rightful place as the school Queen Bee with a cast of loyal followers. But Helen (Claire) has changed her outer appearance, and seems exotic to her classmates and her objective is to take everything that matters from her former best friend. As her
plan for revenge falls into place, Helen (Claire) discovers that the plan is working all too well, wreaking havoc on her own life and changing her in unexpected ways. Will she squander a chance at romance and the possibility of real friendship because of her single-minded determination to bring down Lauren? Revenge may be a dish best served neither hot nor cold.


A newcomer to the local high school shows up at the police precinct and confesses to murder. As he unfolds the story of his brief acquaintance with bully and drug dealer Jon Brande, Shayne Blank describes several incidents in which Jon harassed his friend Mikey and others. For instance, he left Mikey literally holding the bag when he heard rumors that the school will be searched for drugs. After Mikey throws away the illegal substances, Jon demands that he compensate him for his lost products. When Mikey is unable to do so, Jon mounts a campaign of harassment, ratcheting up Mikey’s anxiety level. But there is much more to Shayne and his story, as Detective Rawls finds. In fact, there is much more to the detective than meets the eye. Hautman adds to the suspense by alternating the points of view from which the story is told.


To avoid the economic and political turmoil in Argentina, teen Dani Bensimon and her family move to a New York suburb where she must deal with the challenges of learning a new language and culture and fend off bullies in the form of a clique of privileged girls who point out that her wardrobe once belonged to one of them. Dani is more resilient than she might seem, coping with heartache and family turmoil as she tries to adjust. She also comes to the rescue of Jon, another teen who is unlike the others, and is often bullied because of his own differences.
Amulet/Abrams. 384 pages, $16.95,

The town of Black Creek, North Carolina holds many secrets, one of which is who is responsible for beating up Cat’s former best friend Patrick. As he lies in a coma, Cat investigates the hate crime. Although the local law enforcement officials are sure the crime was committed by someone passing through the area, Cat disagrees. She visits all Patrick’s local haunts and interviews his friends. During the investigation, Cat unearths secrets about her friends, and discovers truths about herself and her own strength. As the result of her descent into the seamy underbelly of the place she calls home, she realizes that she needs to let her own light shine if she ever plans to help anyone else. The effects of meth and on keeping secrets so long that they start to steal away one’s soul are clearly described in this ultimately hopeful novel.

Peters, Julie Ann. (2010). *By the Time You Read This, I’ll Be Dead.*

Fifteen-year-old Daelyn Rice has been plotting her own demise since she was ten, but this time she plans to get things right. Having tried and failed to kill herself several times, she logs on to a website that caters to suicides and begins the countdown to her own death. But despite her determination, Daelyn finds herself drawn to Emily, a fellow chorus member, and to Santana, whose remission from Hodgkins seems to be coming to an end. To prepare herself for the end of her life, Daelyn records her memories of the cruelty of classmates who teased her unmercifully because of her weight. Daelyn’s pain is palpable, and as the stories of mistreatment and bullying mount, it is easy to understand why she has decided to give up on life. Still, there may be a glimmer of possibility for Daelyn.
Sami Sabiri attends a private school where he is the only Muslim student. Bully Eddy Harrison whose father paid for the new football scoreboard has it in for him, following Sami and taunting him with racist epithets such as “sand monkey.” As the harassment escalates, Sami runs away. Amid all this school drama, things fall apart at home too. Inexplicably, Sami’s father is arrested and charged with terrorism and since he works in a government lab with sensitive items, it is possible that he is guilty. Desperate to know the truth Sami enlists two friends to travel to Toronto with him. What he learns there is not what he expects, but it helps him find the strength to face his own demons and stand up for himself. Ultimately, Sami realizes that saying “yes” when he means “no” is not okay, and that real friends will accept him as he is.

References


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History and Mission of Reading Horizons

Reading Horizons began in 1960 as a local newsletter and has developed into an international journal serving major colleges, universities, and individual subscribers across the United States and Canada as well as a host of other countries. The journal serves as a forum for ideas from many schools of thought dedicated to building upon the knowledge base of literacy through research, theoretical essays, opinion pieces, policy studies, and syntheses of best practices. Reading Horizons seeks to bring together school professionals, literacy researchers, teacher educators, parents, and community leaders as they work collaboratively to widen the horizons of literacy and the language arts.

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Manuscripts should be submitted electronically to the editor, Allison L. Baer, at allison.baer@wmich.edu. Please send one copy with full author(s) information, one clean copy with no identifying information, and an abstract. All bitmap image files used must be submitted as separate hi-resolution (300dpi) files in jpg or tif format. Embedded images in articles accepted for publication will be deleted from the final publication unless submitted in this manner. Manuscripts should be approximately 25 pages in length, not counting references and figures, double-spaced, and using 1.25 margins and 12-point font. Manuscripts will be acknowledged within two weeks of submission. Manuscripts must follow the Publication Manual of the American Psychological Association (APA), 5th Edition. Those not written in this style will be returned without review.

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