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From the Editor

Reading is a fascinating pastime and subject. Personally, I love to read a good book and am most passionate about fiction. I am also interested in supporting the literacy needs of my students by researching effective ways to enhance their reading comprehension. As we all know, reading is a complex process that comes easily for some and not so easily for others and, no matter the age, reading is also part of our daily lives. All day long — from the time on the early morning alarm clock that often makes us wish for just 15 minutes more to the memo from the boss to the good night story as we tuck our child to bed — we read. In addition, as we learned from our dear friend Louise Rosenblatt, we need to set a purpose for our reading. Where do we fall on that continuum? Are we at the efferent end reading for information, looking to take something away from the text, or are we engaged in the moment, that aesthetic reading that elicits strong emotions and empathy for the characters? There are so many facets to the reading process that we devote countless research and writing hours to helping us and others understand it. Reading is, indeed, fascinating.

This issue of Reading Horizons embodies many hours of research as the authors have tackled some interesting questions working with a wide age range of readers. Lynn Cohen, Rosanne Kurstedt, and Maria May investigated one facet of reading — the effect of narration and dialogue on oral reading fluency. Fascinated by a small study they did as doctoral students, they wanted to know if similar results would be found with third graders. Their research led them to the socio-psycholinguist work of Chomsky, Clay, Goodman, and Smith as well as to investigating reading comprehension, oral reading fluency, and text structure. Molly Ness looked at secondary social studies and science teachers, asking them if they taught specific comprehension strategies in their content area classrooms. This facet of reading illuminates how literacy instruction is perceived and utilized in the upper grades and highlights the fact that teachers are often loaded down with teaching content to pass a test and don’t have the time to support those necessary literacy skills.

Susan Steffani and Paula Selvester worked with 20 kindergarten children, analyzing the link between vocabulary development, drawing, and picture naming, three other facets of reading. Their questions led them to understand the important place drawing as a form of visual communication has in the reading process. Peggy Daisey asked her pre-service education students to write personal literacy histories in which they described their past reading experiences. Upon reflection, these future educators revealed
that one’s personal interest and enjoyment in reading truly does affect how they value reading both personally and professionally. While we may think that this facet of reading is a given, it is a harbinger of what is to come as our pre-service teachers turn into full-time teachers who will directly affect our students’ lives as readers.

And what about that other intriguing facet of reading — boy readers and their literacy needs? Many of us are faced with a classroom of boys on a daily basis and we desperately try to find something to interest them. This issue has Terrell Young and Barbara Ward directing us to yet another list of great books, this time discussing books that are especially appealing to boys. From President Obama to bullfighters to “the art of fart,” these books are sure to pique the curiosity of boys everywhere. Next issue, our book experts will discuss books that appeal to girls.

With all those (and so many more) facets of reading, it is quite apparent that reading is a complex gemstone meant to be enjoyed and valued. And we, as literacy researchers, will keep that gemstone bright as we continue to ask those countless questions and share the many answers.

Allison L. Baer, Editor
Reading Horizons
Kalamazoo, MI

There is no more crucial or basic skill in all of education than reading.
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Fluency, Text Structure, and Retelling: A Complex Relationship

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Abstract
This study examined the relationship between fluency and comprehension, specifically related to the text structures of narration and dialogue. Using descriptive statistics, this investigation first examined fluency and comprehension of three teacher educators and then through action research examined fluency and comprehension of five third grade students. Our findings showed that, as measured by retelling, the text structures of narration and dialogue impacted both fluency rate and comprehension.

For many years, fluency has been acknowledged as an essential component in becoming a proficient and strategic reader (Allington, 1983; Klenk & Kibby, 2000; National Institute of Child Health and Human Development, 2000; Rasinski, 2000). In some instances, an assumption is made that with fluency comes comprehension. The Report of the National Reading Panel (National Institute of Child Health and Human Development, 2000) stated, “Fluency is important because it provides a bridge between word recognition and comprehension” (p. 22). It is believed by some that fluency allows readers to make connections because the readers are not focused on decoding individual words. Yet, in the face of repeated
calls to include fluency instruction in the reading curriculum (Rasinski & Hoffman, 2003; Rasinski & Padak, 2005), there are still many unanswered questions about the nature of fluency, its definition, and its role within the overall process of reading, and in particular, about its relationship to comprehension (Jenkins, Fuchs, van den Broek, Espin, & Deno, 2003; Pikulski & Chard, 2005).

It is for these reasons we decided to examine fluency and comprehension, as measured by retelling. Initially we used the fluency definition from the Report of the National Reading Panel which states that fluency is “the ability to read a text quickly and accurately” (National Institute of Child Health and Human Development, 2000, p. 22). However, new research suggests a more comprehensive definition of fluency that includes aspects of comprehension. That definition states, “Fluency is not reading speed or oral reading expression, but the ability to decode and comprehend text at the same time” (Samuels, 2006, p. 9). This more recent definition supports the intentions of this study since we set out to understand the complex relationship between oral reading speed (previously defined as fluency) and comprehension, as measured by retelling. Retelling is the recalling of sequenced events from a text and frequently used in school settings as a measure of comprehension (Brown & Cambourne, 1987; Gambrell, Pfeiffer, & Wilson, 1985).

Initially, the study was conducted by three female teacher educators as part of a course requirement for a doctoral program. Fascinated by the results, we wanted to know if similar results would be found with a sample of elementary school readers. Therefore, one of the initial researchers conducted a follow-up study with third graders. The following questions guided this examination of fluency and comprehension:

1. How do text structures of narration and dialogue effect fluency?
2. What is the connection between fluency rates and what is retold in texts?

A Conceptual Framework

A socio-psycholinguistic view was the context for this study on fluency and narrative retellings. Pikulski and Chard’s (2005) conceptualization of fluency calls for the inclusion of both surface (symbolic structure) and deep (pertaining to meaning) constructs of reading. Conceptualizing fluency as the “bridge between decoding and comprehension” (p. 510), Pikulski and Chard (2005) define it as
“accurate, rapid, expressive oral reading [that can be] applied during, and make possible, silent reading comprehension” (p. 510). This dependence between deep and surface structure of reading is also echoed in the studies that look at reading as a socio-psycholinguistic process (Goodman, 1996; Kucer, 2005; Paulson, 2005).

Originating primarily from the work of Chomsky (1970), Clay (1979), Goodman, (1996), and Smith (2004), socio-psycholinguists view reading as a systemic or non-linear process where cues from various linguistic, cognitive, social, and pragmatic systems interact. This interaction is complex, unpredictable and generally not replicable across texts, within text, and across readers (Paulson, 2005). From this perspective fluency is characterized by the fluctuations of speed and prosodic markers that occur as a byproduct of the ongoing act of “comprehending” (Goodman, Watson, & Burke, 2005, p. 56). A noted difference in this model from other popular models of reading pertains to its diminished emphasis on word accuracy. Whereas some definitions of fluency emphasize accurate word recognition as its most basic prerequisite, psycholinguists propose that too much emphasis on accurate word reading can “short-circuit” (Goodman, 1996, p. 115) a reader’s attempts at effective and efficient reading.

Since so much emphasis is being placed on fluency and its connection to comprehension, it is important to examine the literature on the relationship between oral reading fluency and comprehension and how texts influence both fluency and comprehension.

**Oral Reading Fluency and Comprehension**

The results of the 2002 National Assessment of Educational Progress (NAEP) study of fourth-grade students’ oral reading mirrored the findings of the initial NAEP study (Pinnell, Pikulski, Wixson, Campbell, Gough, & Beatty, 1995), which found that only 55% of those students tested were fluent readers. Therefore, the studies that delve into understanding the reading process must be in the forefront of literacy research so more students can become successful readers. Our study was framed by a socio-psycholinguistic perspective by examining the relationship between fluency and retelling within an individuals’ reading of a text, as well as between readers. Although good readers tend to be fluent readers, with respect to speed and accuracy of oral reading, fluent reading does not ensure students have good comprehension (Jenkins et al., 2003). Fluent text reading and reading comprehension tap similar but independent aspects of the reading process. Kucer (2005)
explains the comprehension process as more than the simple accumulation of individual word meanings. “The reader must build links between and among individual words and the other systems of language represented in the text. The reader’s prior knowledge significantly impacts text comprehension” (p. 160). Evidenced by the above statements, reading comprehension is composed of several essential components: the reader, the text, the activity, and the social context. Our study examined components based on Kucer’s (2005) explanation: the reader, the text, and the social activity of reading and recalling narrative text structures.

Studies indicate oral reading fluency may contribute less to comprehension as children become proficient and experienced readers. Yovanoff, Duesbery, Alonzo, & Tindal (2005) found that oral reading fluency was more important for comprehension in early grades, but in later grades vocabulary and text structure were increasingly more important for reading comprehension. In an examination of correlates of children’s reading comprehension, Paris, Carpenter, Paris, and Hamilton (2005) found that young readers’ oral reading fluency and print awareness were highly correlated with reading comprehension. However, this correlation declined with age, possibly related to the fact that at more proficient stages of reading, readers already have accurate, automatic word identification. Additionally, reading comprehension begins to depend more on language comprehension and text awareness. The components that remain highly correlated to reading comprehension regardless of age include: (a) oral language, (b) vocabulary, and (c) narrative text structure awareness (Paris, et al., 2005). This research implies that building a reader’s understanding of vocabulary and text structure may facilitate a reader’s ability to comprehend text at all developmental stages of the reading process. Therefore, having a good understanding of the kinds of texts to use and the importance of text features was central to our investigation.

**Text Structure**

We were surprised to find a dearth of studies that examined the variances of reading fluency and comprehension within a narrative text that contained both narration and dialogic sentences. For the most part, research on text structure and its influence on reading fluency and comprehension have been limited to examining narrative and expository texts (Lagrou, Burns, Mizerek, & Mosack, 2006; Zabrucky & Moore, 1999). Additionally, some research has focused on sentence length, vocabulary levels, and Lexile scores (Miller & Schwanenflugel, 2006).
Zabrusky and Moore (1999) examined the influence of adults’ fluency, monitoring of understanding, and recall with narrative and expository texts. They found that adults read narrative texts more fluidly and reread more sentences in the expository texts to sustain understanding. Additionally, they found that although readers’ expository reading slowed considerably in relation to their reading of narrative texts, their recall of the expository text was not disproportionate to their recall of narrative texts, although, participants did recall more information from the narrative passages. Furthermore, participants’ recall from both narrative and expository texts was related to their use of rereading strategies, which of course influenced their reading fluency.

Another important influence on both fluency and comprehension is exposure to text. Research suggests the need to support students’ ability to use comprehension strategies when reading a variety of text types and genres (Donovan & Smolkin, 2002; Duke, 2000; Dymock, 2007). Additionally, Kuhn et al. (2006) and Kuhn (2004) suggest wide readings of different texts with scaffolded instruction rather than repeated readings of the same text may be as effective or more so for young readers. In Kuhn’s (2004) study of small-group fluency instruction with struggling second-grade readers, wide oral reading of different titles and genres compared to repeated oral reading of one text resulted in gains in fluency using several measures that included: (a) number of words read in isolation, (b) correct words per minute in context, and (c) expressive reading measures. In addition, the wide oral reading group performed better on answering text-implicit and text-explicit questions to assess comprehension than did the repeated oral reading group. It appears familiarity with different text types supports fluency and comprehension.

Miller and Schwanenflugel (2006) examined the relation among prosodic reading of complex sentences, reading speed and accuracy, and comprehension. Passages with six linguistic features were used in this study with students and adults. The linguistic features were: (a) basic declarative sentences, (b) basic quotatives, (c) why questions, (d) yes-no questions, (e) complex adjectival phrase commas, and (f) phrase-final commas. A relationship between increased comprehension skills and prosodic reading for linguistic features of declarative sentences and yes-no questions were found. These findings concur with Kuhn and Stahl (2003) who found that fluency, more specifically prosody, is important to reading comprehension.

At present, research is unclear about how text structures such as narration and dialogue influence text leveling, and how that understanding might support or
inhibit reading fluency instruction and assessment. However, all fluency methods require the teacher to select appropriate text material. The use of leveled books at a learner’s reading level appears to be important for fluency practice. Guided reading is one means of providing oral reading fluency practice with leveled texts (Fountas & Pinnell, 1996). Another measure for matching reader ability with text difficulty is *The Lexile Framework® for Reading* (2005). An explanation of Lexiles and how they work can be found at [http://www.lexile.com](http://www.lexile.com). Lexile measures are based on two predictors of how difficult a text is to comprehend: semantic difficulty (word frequency) and syntactic complexity (sentence length). Regardless of the type of leveling system used, it is important to remember that the type of text can impact both fluency development, as well as influence children’s ability to comprehend. A brief discussion of the literature about comprehension assessment, as measured by retelling, follows.

**Retelling**

Reading comprehension is multifaceted and cannot be adequately measured by any single approach, process, or test (Paris & Stahl, 2005). Retelling, however, is a popular classroom assessment task, as well as instructional strategy frequently used in schools to assess reading comprehension. Retelling is a system for evaluating the depth and breadth of student text understandings based on their attempts to retell or recall what they have read. Retelling stories (free recall) has been previously researched as an assessment of comprehension (Brown & Cambourne, 1987; Gambrell, Pfeiffer, & Wilson, 1985; Irwin & Mitchell, 1983). The basic assumption among researchers is that retelling indicates something about the reader’s assimilation and reconstruction of text information, and therefore reflects comprehension. Evidence of this process of assimilation and recall of narrative text depends on a coherent referential and causal network of events between textual clauses (Trabasso & van den Broek; 1985; van den Broek, 1989; van den Broek & Kremer, 2000). In one study van den Broek and Kremer (2000) report the effectiveness of causal questioning techniques during reading with ninth-grade students, but report different results for third-grade students. Third-grade students showed better recall after reading rather than during reading of text. This may be due, in part, to the cognitive processes for students at earlier stages of reading being more demanding as they learn to integrate all cueing systems.

Retelling assessments can be administered orally or as a written response to text. Calfee and Miller (2005) discuss four lenses to comprehension assessment,
suggesting “composing a response to a text as a trustworthy indicator” (p. 216). Brown and Cambourne (1987) discuss the value of written retelling to provide information about reading ability and control of genres, describing this as “linguistic spillover” (p. 15). Features of text that children are asked to read and retell are internalized by children in two ways. First, written retellings contain some or all of the events, characters, and meanings of original text. Second, there is evidence of similar vocabulary and phraseology (Brown & Cambourne, 1987).

Roberts, Good, and Corcoran (2005) investigated oral reading fluency and retelling to measure comprehension asserting that retell measures should be used in tandem with oral reading fluency measures to identify the relationship between fluency and comprehension, and “provide a vehicle for more school-level resources and maximizing the efficiency and effectiveness of early reading instruction” (p. 314).

**Purpose of the Present Study**

Although Paris, et al. (2005) asserted a high correlation between reading comprehension and text structure awareness at any age, more research is needed to better understand the relationship between fluency and story retelling (Roberts, et al., 2005). Therefore, we examined the relationship between fluency and comprehension, as measured by retelling, within the text structures of narration and dialogue, as evidenced in both oral and written retellings of the text. We sought answers to questions regarding oral reading fluency and comprehension given the marked increase in attention after the publication of the Report of the National Reading Panel (National Institute of Child Health and Human Development, 2000) and the NAEP (2002) findings.

Teacher educators conducting action research to improve pedagogical knowledge and provide professional development has previously been researched (Cochran-Smith & Lytle, 1993, 1999). Cochran-Smith and Lytle (1999) use the term knowledge-in-practice to conceptualize the research perspective of teacher educators who apply research questions to classroom practice. As previously mentioned, Miller and Schwanenfluegel (2006) examined linguistic features, prosodic reading, and comprehension with adults and children. Using Cochran-Smith’s (1999) conceptions and research by Miller and Schwanenfluegel (2006), the first study conducted with three adults was replicated with elementary readers. By replication of
our design with elementary students in action research, we hoped to strengthen our initial findings and make broader generalizations to additional populations.

**Methodology**

**Participants**

The adult sample was three female teacher educators, Ann, Elsa, and Sara, (pseudonyms), all of whom were completing doctoral coursework at private universities in the northeast at the time data was collected. They had several years of classroom teaching experience prior to working at the university, and Elsa was a literacy specialist for third-grade students in a suburban public school. Ann and Sara are native speakers of English. Elsa is a second language learner, with, until 14 years of age, her primary language being Spanish. Elsa is literate in both English and Spanish, although her academic literacy is in English.

A year after the initial investigation was conducted with the adult readers, Elsa replicated the study with five elementary students, Alena, Angelica, Jason, Jon, and Rebecca (pseudonyms), to compare differences between adult and elementary readers. Her goal was to better understand the adult data and findings, as well as to ascertain similarities and differences among adult and elementary readers. The students were between the ages of eight and nine years old. Angelica, Jon, and Jason were eligible for additional reading support. Angelica and Alena, born in the United States, spoke languages other than English in their homes as Angelica spoke Polish and Alena spoke German. They did not receive English as a Second Language instruction in the school setting.

**Setting**

The adults, who were completing an assignment for their doctoral work, read the short story *Poison* (Dahl, 1989) in their home environment. Elsa’s third-grade students read *Armadillo Rodeo* (Brett, 1995). At the time of the reading the students were in the eighth month of third grade and came from three different classrooms.

**Instruments**

All participants read their respective stories aloud to measure fluency rates and story retellings in this investigation. The short story *Poison* (Dahl, 1989) has
4,310 words and was selected by the course instructor. The story is set in India and centers on an Englishman and Indian physician who attempt to prevent a second Englishman from being bitten by a poisonous snake. The title not only indicates the poison of the snake, but also the poison of racism during British colonialism in India.

*Armadillo Rodeo* (Brett, 1995), an 866-word picture book format text, Lexile level of 670 L, follows a sequential, episodic structure with intertwining story lines. Set in Texas, the story takes the reader on unexpected rodeo adventures as an armadillo named Bo follows a fancy cowboy boot he believes to be a rootin’ tootin’ red armadillo. Elsa selected *Armadillo Rodeo* for the third-grade students. Both texts contained narrative and dialogic structures, some difficult words, and a variety of sentence structures.

**Procedure**

The adult sample read *Poison* (Dahl, 1989) into a tape recorder. Following the reading, the adults put the text aside and wrote as many details as they could remember, without summarizing or revising the retelling in any way. Ann wrote by hand, and Elsa and Sara typed their retellings on the computer. Similarly, oral reading data were collected for the third-grade readers with *Armadillo Rodeo* (Brett, 1995). Differences in collection of retelling data between the adult sample and the student sample were students orally retold the text, and their retellings were transcribed to enhance accuracy of the data. In addition, the students completed a graphic organizer, featuring different story elements (Figure 1).

| Story Plan |
|------------|------------|
| Characters | Setting  |
| Problem    | What happens |
| Solution   | First   |
|            | Next   |
|            | Then   |
|            | Finally |

*Figure 1. Graphic Organizer for Retelling*
Each data set supported this investigation by answering questions regarding reading fluency and comprehension. More specifically, we sought answers to what was retold in the stories and the relationships between fluency and retelling.

**Data Analysis**

**Text Coding**

To help identify participants’ fluency rates and retelling, a text-coding system was established. We segmented the texts into units of meaning: clauses and episodes. The use of clauses and episodes is widely used in discourse analysis as well as in previous research on fluency and comprehension (Levy, Campsall, Browne, Cooper, Waterhouse, & Wilson, 1995; Trabasso & van den Broek, 1985; van den Broek, 1989; van den Broek & Kremer, 2000). Clauses are units of meaning that contain both a subject and verbal phrase (Goodman, 1996). Clauses were coded into narrative and dialogic text structures. For the adult sample, participants collaboratively segmented *Poison* (Dahl, 1989); Elsa coded *Armadillo Rodeo* (Brett, 1995) for student samples. Dialogic clauses are clauses within the dialogue that occur between story characters. The text of *Poison* (Dahl, 1989) was coded into 794 clauses, 554 of which were narrative clauses (70%) and 240 of which were dialogic (30%). The text *Armadillo Rodeo* (Brett, 1995) was coded into 142 clauses, 115 of which were narrative clauses (81%) and 27 of which were dialogic clauses (19%). Each clause was color coded to make distinctions between narrative (yellow) and dialogic (orange) clauses.

The other aspect of the text-coding system included dividing the text into episodes, which are segments of text that describe a chain of events (Harris & Hodges, 1995). *Poison* (Dahl, 1989) was divided into 50 episodes and *Armadillo Rodeo* (Brett, 1995) was divided into 23 episodes. Each episode was given a descriptive title that matched textual meaning. For example, Episode 21 was titled, “It’s not an Armadillooooo!” (Table 1). Once the text was coded, analysis involved three components: (a) fluency rates, (b) retellings, and (c) the relationship among fluency and retelling.

Transcriptions and retellings were read by Elsa and several classroom teachers for purposes of reliability. To establish reliability for the adult sample, audiotapes of oral readings and retellings were analyzed by at least two raters. When a discrepancy arose, a third rater was called in to mediate the discrepancy.
Table 1. Text Coding for Armadillo Rodeo (Brett, 1995)

<table>
<thead>
<tr>
<th>Episode</th>
<th>Descriptive Title</th>
<th>Clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mama Armadillo Takes Roll Call</td>
<td>1-9</td>
</tr>
<tr>
<td>2</td>
<td>Bo Wanders Off</td>
<td>10-14</td>
</tr>
<tr>
<td>3</td>
<td>Harmony Jean Heads to Can Creek</td>
<td>15-18</td>
</tr>
<tr>
<td>4</td>
<td>Harmony Jean Scuffs Up Her New Boots</td>
<td>19-28</td>
</tr>
<tr>
<td>5</td>
<td>Bo Spots the Red Armadillo</td>
<td>29-38</td>
</tr>
<tr>
<td>6</td>
<td>Harmony Jean Scuffs Back to Curly H Ranch</td>
<td>39-44</td>
</tr>
<tr>
<td>7</td>
<td>Ma Notices Bo is Gone</td>
<td>45-48</td>
</tr>
<tr>
<td>8</td>
<td>Bo Follows Harmony Jean to the Rodeo</td>
<td>49-54</td>
</tr>
<tr>
<td>9</td>
<td>Spotlight Bucks and Hurls Bo in the Air</td>
<td>55-62</td>
</tr>
<tr>
<td>10</td>
<td>A Trip Through the Arena</td>
<td>63-65</td>
</tr>
<tr>
<td>11</td>
<td>Ma is Hot on Bo’s Trail</td>
<td>66-69</td>
</tr>
<tr>
<td>12</td>
<td>Bo Goes to the Bar B-Que</td>
<td>70-78</td>
</tr>
<tr>
<td>13</td>
<td>Bo Eats a Red-Hot Chili Pepper</td>
<td>79-87</td>
</tr>
<tr>
<td>14</td>
<td>Barn Dance Starts</td>
<td>88-91</td>
</tr>
<tr>
<td>15</td>
<td>Bo is Kicked to the Hay Loft</td>
<td>92-100</td>
</tr>
<tr>
<td>16</td>
<td>Ma Armadillo Hears Bo Again</td>
<td>101-102</td>
</tr>
<tr>
<td>17</td>
<td>Bo Returns to the Dance Floor</td>
<td>103-104</td>
</tr>
<tr>
<td>18</td>
<td>Harmony Jean at the Campfire</td>
<td>105-109</td>
</tr>
<tr>
<td>19</td>
<td>Bo Catches Up to the Red Armadillo</td>
<td>110-114</td>
</tr>
<tr>
<td>20</td>
<td>Bo Introduces Himself</td>
<td>115-122</td>
</tr>
<tr>
<td>21</td>
<td>It’s Not An Armadillooooo!</td>
<td>123-130</td>
</tr>
<tr>
<td>22</td>
<td>Ma Armadillo Finds Bo</td>
<td>131-137</td>
</tr>
<tr>
<td>23</td>
<td>Bo Thinks About His Adventures</td>
<td>138-142</td>
</tr>
</tbody>
</table>

A word count was obtained for each episode. Mean speed of words per minute were computed within each entire text. Data were reported as mean scores and standard deviations.
Retellings of *Poison* (Dahl, 1989) and *Armadillo Rodeo* (Brett, 1995) were analyzed using a numerical rating to identify how many episodes were included in participant’s retellings for a total possible rating of 50 for *Poison* (Dahl, 1989) and 23 for *Armadillo Rodeo* (Brett, 1995). To evaluate participants’ retellings for meaning, we assigned one point when an idea was correctly retold within an episode, and half a point for an incomplete idea or an idea out of sequence. Student retellings were analyzed by creating a tally of how many clauses were represented in the oral and written graphic organizer retellings of each participant and across participants. Some common retelling assessments measure words per minute (Good & Kaminski, 2002). Since clauses are units of meaning as are the episodes, this research moves closer to understanding readers’ text comprehension through retellings by focusing the measurement on meaning. In both instances, analysis involved examining the percentage of narrative and dialogic clauses retold and the percentage of narrative to dialogic clauses retold within each participant’s retelling. Each retelling was analyzed by at least two raters. When a discrepancy arose, a third rater was called in to mediate the discrepancy.

In order to conceptualize how fluency and retelling relate to one another, a comparison of the mean fluency rates and percentage of clauses retold was calculated. Individual participant profiles were analyzed to compare fluency rate and retelling across participants.

**Results**

Through the investigation, we were able to determine fluency rates and the amount and type of text retold with skilled adult readers as well as with third grade readers. The analysis was carried out in multiple steps that examined the differences within and across participants, each addressing one of the goals of the present research. The first research question asked if text structures of narration and dialogue effected fluency. The second question examined the relationship between reading speed and reading comprehension, as measured by retellings of text.

**Research Question One**

Fluency rates for all participants are reported in words per minute and can be found in Table 1. Fluency stayed fairly consistent within the adults’ reading of the text, with Sara being the most fluent reader, followed by Ann, and then Elsa. Students’ fluency also stayed fairly consistent within the reading of the text. The
fastest reader, Alena, averaged 125 words per minute (wpm) while Jon, the slowest reader, averaged 77 wpm. According to Hasbrouck and Tindal’s (2006) suggested standards for readers in spring of third grade, Alena and Rebecca were “progressing according to other third-grade readers.” Angelica, Jason, and Jon were “making adequate progress” (p. 639).

Table 2. Descriptive Statistics for Fluency Rates for Entire Text

<table>
<thead>
<tr>
<th>Participants</th>
<th>M (WPM)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann</td>
<td>152.6</td>
<td>12.0</td>
</tr>
<tr>
<td>Elsa</td>
<td>141.9</td>
<td>17.1</td>
</tr>
<tr>
<td>Sara</td>
<td>204.1</td>
<td>10.6</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alena</td>
<td>125.2</td>
<td>27.4</td>
</tr>
<tr>
<td>Angelica</td>
<td>84.1</td>
<td>18.6</td>
</tr>
<tr>
<td>Jason</td>
<td>82.9</td>
<td>22.5</td>
</tr>
<tr>
<td>Jon</td>
<td>77.1</td>
<td>11.2</td>
</tr>
<tr>
<td>Rebecca</td>
<td>108.1</td>
<td>23.3</td>
</tr>
</tbody>
</table>

An interesting finding in terms of structures of narration and dialogue was fluency rates generally decreased with episodes that contained dialogic clauses with the adult sample. The students Alena and Rebecca, who displayed higher levels of proficiency reading the entire text, were more fluent when reading dialogic clauses, compared to Angelica, Jason, and Jon, who read dialogue at a slower rate.

Research question Two

Retellings of Poison (Dahl, 1989) and Armadillo Rodeo (Brett, 1995) were then examined. Using the retelling episode rating system, participant retelling scores are reported as percentages in Figures 2 and 3. The fastest readers in both samples retold the greatest amount of text. In the adult sample, Sara retold 76% of the text, Elsa 54%, and Ann 32%. Elsa was the slowest reader in the adult sample but retold quite a bit more than Ann. The fastest student readers, Alena (78%) and Rebecca (83%), retold the greatest amount of text. Interestingly, Angelina, one of the slowest readers, retold 74% of the text.
Retellings were also examined using the text-coding system for dialogic and narrative clauses. In the adult sample, dialogic clauses were retold more than narrative clauses. With the student sample, a good percentage of the dialogic text was retold, with Alena and Angelica retelling the largest percentage (see Figures 4 and 5). When we looked at the relationship between fluency and retelling within the individual readers, however, there was no evidence that the participants retold the parts of the story they read most fluently. Further, while the adults were more fluent than students, student readers retold a larger percentage of the text. This may
have to do with the length of text as *Poison* (Dahl, 1989) has 4,310 words, while *Armadillo Rodeo* (Brett, 1995) contains 866 words.

**Figure 4.** Adult Retelling Summary of Narrative and Dialogic Clauses

![Retelling Summary Graph](image)

<table>
<thead>
<tr>
<th>% of Clauses Retold</th>
<th>Ann</th>
<th>Elsa</th>
<th>Sara</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Narrative Clauses Retold</td>
<td>3</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>% of Dialogic Clauses Retold</td>
<td>6</td>
<td>19</td>
<td>28</td>
</tr>
</tbody>
</table>

**Figure 5.** Student Retelling Summary of Narrative and Dialogic Clauses

![Retelling Summary Graph](image)

<table>
<thead>
<tr>
<th>% of Clauses Retold</th>
<th>Alena</th>
<th>Angelica</th>
<th>Jason</th>
<th>Jon</th>
<th>Rebecca</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Narrative Clauses Retold</td>
<td>39</td>
<td>41</td>
<td>40</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>% of Dialogic Clauses Retold</td>
<td>41</td>
<td>56</td>
<td>19</td>
<td>26</td>
<td>33</td>
</tr>
</tbody>
</table>

To summarize, an analysis of fluency rates, retellings, and fluency rates and clauses retold with adults and third grade students revealed that: (a) the fastest reader retold the greatest amount of text, (b) adult and less proficient student readers’
reading rate decreased when reading dialogic clauses, (c) dialogic clauses were retold more than narrative clauses, and (e) fluency rate was partially correlated with the amount of text retold across or within participants. It was only partially correlated both within and across participants because within an individual’s reading of the text, the episodes read most fluently were not necessarily the episodes that were retold. Across the participants the relationships between fluency and retellings were also only partially correlated because only the fastest readers retold the most. The other readers’ fluency rates did not correlate with how much was retold. For example, in the adult sample Ann’s reading rate was quite steady throughout the reading and faster than Elsa’s. However, Elsa retold 11% of the clauses and 54% of the episodes while Ann only retold 4% of the clauses, which was 32% of the episodes.

Discussion

There appears to be similar patterns between the findings with the adults and third grade readers that suggests fluency, and the relationship among fluency and comprehension, as measured by retelling, and text structure is quite complex. In both data sets there are important findings that provide a better understanding of the relationship between fluency, text structure, and comprehension with proficient and developing readers.

The findings we present regarding fluency and retelling of narrative text structures of narration and dialogue shows similarities to findings described in previous studies, and adds additional insights as well. While evidence that adult and more proficient student readers were the most fluent and retold the most text may come as no surprise to teachers, the finding addressing the difference between fluency rates when reading dialogue and narration is an important result for consideration. Teachers tend to look at texts in terms of their reading levels or leveling guidelines (Fountas & Pinnell, 1996). Based upon the results of this research, it might be important to look beyond a leveling guide and examine textual features such as narration and dialogue, which this study examined. The third graders, Angelica, Jason, and Jon, did not meet Hasbrouck’s and Tidal’s oral reading standards for fluency with the narrative text *Armadillo Rodeo* (Brett, 1995). However, they did retell 74%, 60%, and 47% of the episodes, respectively, which indicates relatively solid comprehension of the text. Consequently, while *Armadillo Rodeo* (Brett, 1995) was considered an instructional level text and might have been stylistically, conceptually, and linguistically challenging to these participants, they were able
to comprehend the story. This may have occurred because students were able to understand the story through the dialogue.

Miller and Schwanenfluegel’s (2006) research with adults and third graders and other research (Walker, Makhtari, & Sargent, 2006) on prosodic reading might explain greater recall with dialogic text structures in this study. Prosodic reading covers a range of linguistic and paralinguistic attributes such as intonation patterns and fluctuations in articulation. “This parsing of text signifies that the reader has an understanding of how meaning is encoded while the text is being read,” (Walker, Makhtari, & Sargent, 2006, p. 90). Reading dialogue requires expression or prosodic reading. With dialogic text there are fluctuations in intonation and readers frequently pause while thinking about the text. In our research the adult sample and a good percent of student readers retold more dialogic clauses than narrative clauses, even though their fluency rates were slower while reading the dialogic text.

Looking at the connection between fluency and retelling across participants, we found, in accordance with Jenkins et al. (2003) that processing rate of reading, measured in this instance by the speed of reading performance or fluency, seemed, with the exception of Ann and Angelica, to be partially correlated with the amount of text that was retold. Sara (adult sample), Alena, and Rebecca (student sample) had the fastest fluency rate and retold the greatest number of clauses from the text. Ann’s fluency rate was not consistent with the amount retold as she retold only 32% of the episodes, which included only 4% of the clauses. Elsa had the slowest fluency rate in the adult sample but retold 54% of the episodes and 11% of the clauses. Angelica, a dual language speaker, did not meet Hasbrouck and Tindal’s (2006) fluency standard but was able to retell 74% of the episodes and had the highest rate (44%) of retelling of dialogic clauses. Interestingly, Elsa and Angelica were both dual language speakers, which may have impacted their fluency rates. Furthermore, both reported having background knowledge of the story content, which may have influenced their ability to comprehend the texts. Elsa had knowledge of British colonialism in India, and Angelica reported having background knowledge about rodeos. Ann, on the other hand, reported having no background knowledge of British colonialism in India. These findings support a socio-psycholinguistic lens of reading because they highlight the intricate and complex network of factors, other than fluency rate, that influence comprehension. In particular, the ability of readers to use what they know to “build links between and among individual words” (Kucer, 2005, p.160) to make sense of their reading.
Perhaps we need to look more deeply into the conceptualization of fluency as both deep and surface constructs of reading (Kucer, 2005; Paulson, 2005, Pikulski & Chard, 2005). Retelling of text may be linked more with prior knowledge and interest than to reading fluency in sections of the text. Also, there is a paucity of research in the domains of reading fluency and comprehension in second-language contexts. In a recent synthesis of research on the development of literacy in language-minority students, Lesaux and Geva (2006) report almost no research in this area. More research to identify the “specific oral language skills that are related to aspects of reading comprehension, such as familiarity with text structures and text genre conventions”, (Lesaux & Geva, p. 68) might provide a better understanding for Angelica’s high retelling scores and the fact that Elsa retold more text than Ann.

Furthermore, much of the research on reading comprehension discusses two kinds of understandings: referential and causal/logical coherence (Clifton & Duffy, 2001; van den Broek & Kremer, 2000). The text structures of narration and dialogue may require different levels of referential and causal/logical coherence, which might explain why a higher percentage of dialogic clauses were retold. Our findings with adults and third-grade readers support a socio-psycholinguist conception of fluency that is more than accuracy and speed, as this study shows a non-linear complex process where linguistic, cognitive, social, and pragmatic cues interact within text structures.

**Implications for Teaching and Further Research**

The implications from this study are many. First, this study suggests readers have greater recall with dialogic text structures. Teachers working with students who have difficulty with recall might provide students with texts that incorporate more dialogue. Reutzel and Cooter (2008) recommend Readers’ Theater, which uses texts with sufficient dialogue for fluency instruction. They also suggest that upper-elementary and middle school readers write their own scripts, as this will give students opportunities to develop strategies and confidence with the more likely dialogic structure remembered. Teachers could also have students read passages written with a heavy emphasis on the different structures of dialogue and narration. Examining students’ retellings of these different passages might enable teachers and students to glean insights into the retelling process. Subsequently, this may facilitate students’ ability to make sense of and retell different types of text.

Additionally, Dymock (2007) suggests explicit comprehension instruction is useful. Specifically, she presents a comprehensive program for teaching story
structure using story grammar that enhances students’ ability to comprehend narrative texts. Story grammar or rules that generate a structure for narrative stories “helps teachers move away from general explanations of story structure (e.g., beginning, middle, and end) to the more specific (e.g., stories have characters, a theme, episodes, and a plot)” (Dymock, 2007, p. 162).

Further, van den Boek and Kremer (2000) suggest that teachers use texts for two different purposes: teaching content and teaching comprehension strategies. The texts teachers chose would differ in the conceptual and cognitive demands required by the reader. Thus, the amount of causal/logistical or referential inferences that needed to be made would occur less when using a text to teach content.

When teaching comprehension strategies it is important that students read widely (Kuhn, 2004; Kuhn et al., 2006) and are exposed to different text types (Donovan & Smolkin, 2002; Duke, 2000). Equally important is that the texts are of interest to students so they can use background knowledge to connect with, make sense of, and enjoy the text. In this study, we examined fluency with respect to narrative text structures. There was a consistent gap between performance on narrative texts and informational texts. In state assessments across the country children achieve higher scores on narrative texts (Pearson & Hamm, 2005). Is this because children are exposed to more narrative than expository text? Or is this because the text structures of narrative texts are more easily remembered due to the connections (causal/logical and referential cohesion) readers are able to make within the narratives and with their own lives (Trabasso & van den Broek, 1985; van den Broek & Kremer, 2000)? Providing a variety of text types (narrative and expository) and genres (fairy tales, realistic fiction, almanacs, newspapers, etc.) may support students in the use of multiple comprehension strategies.

This study represents one snapshot of an important area of fluency research and instruction, but has limitations and requires further research. Our data sets were small and the adult sample represented reading behaviors of proficient readers. One text was used with both samples. However, our research provides glimpses into the relationship between fluency, text structure, and comprehension, as measured by retelling, which can help when teaching reading with elementary and older students. We also recognize that this study has only scratched the surface regarding the complex relationship between fluency and comprehension.

We believe it is imperative to conduct further studies that look at this relationship, particularly since we found the connection between fluency and comprehension to be tenuous in two ways. First, within participants’ oral readings,
the reading of dialogue was less fluent and less accurate. However, dialogic clauses were more prevalent than narration in our retellings. Second, Elsa’s fluency rate was slower than Ann’s rate, but Elsa retold considerably more. Likewise, Angelica was less fluent but retold a large percent of text. Within the educational undertow of standards and high-stakes testing we see today, more studies about the relationships and connections between comprehension and fluency will equip educators with a better understanding of fluency and comprehension, and thus enable them to hone their reading practice and help their students become more successful, competent readers.

References


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The Relationship of Drawing, Writing, Literacy, and Math in Kindergarten Children

Susan Steffani, Ph.D. and Paula M. Selvester, Ed.D.
University of California, Chico, CA

Abstract
This study supports and extends previous research that suggests there is a relationship between picture naming and a variety of other factors that impact early literacy. The study explores the picture naming/representing ability of kindergarteners (n = 20), their ability to name and draw pictures of objects they could and could not immediately identify, and their early literacy and math assessments. Significant results were found for 1) drawing ratings and alphabet writing, and 2) alphabet writing, geometric shape sorting, and rhyming. Relationships between kindergarteners’ picturing naming and drawing and their early literacy assessment performance are explored.

Young children’s development of emergent literacy skills begins early in life. By observing and participating in literacy events at home with caregivers and in other social settings, children begin to learn the functions of literacy (Snow, Burns, & Griffith, 1998). Their reading and writing ability develops as their visual and motor skills develop. Since young learners are still developing fine motor skills, letter writing and identification represent demanding and complex tasks. In the standards-based, high-stakes accountability era of No Child Left Behind, there is increased pressure for children to reach higher and higher standards for literacy development. In fact, literacy standards for preschool have redefined teachers’ roles with very young learners (Bodrova, Leong, and Paynter, 1999). Some research suggests
the authority of standards and the standardization of the curriculum without a shared, common vision of what characterizes good teaching, may lead educators to adopt a narrow or reductionist approach to the complex challenge of teaching and learning (Delandeshere & Arens, 2001). Teachers increasingly test performance for language arts skills such as letter writing and letter identification in younger and younger children. With the pressure to prepare children for test taking and the high stakes attached to the testing, teachers often begin to reduce their curriculum to test preparation, eventually eliminating such developmentally satisfying activities as drawing.

Yet drawing is a type of communication that can be considered a form of visual communication (Gentle, 1981; Hall, 2007; Hawkins, 2002; Read, 1943). There is research that would support teachers inserting drawing into their curriculum equal to oral or other written forms of communication. Drawing has long been recognized as a pre-writing skill, and research has suggested that there is much more complexity to young children’s drawing than was previously considered (Coates & Coates, 2006; Eng, 1999; Goodnow, 1977; Paine, 1981). Drawing is considered a valuable means to provide multimodality learning opportunities for young children as a way to express meaning in different ways (Anning & Ring, 2004; Kress, 2000; Pahl, 2001, 2002). The purpose of this study was to explore if drawing ability in kindergarten children was related to naming ability, writing ability, and measures of reading and math.

**Vocabulary and Drawing**

The ability to name objects is a skill that can be learned from a very early age and honed as time passes. Yet, despite the seemingly naturalness of this ability, there are times when the word we want to say does not come to mind, and we are left searching for it or a suitable substitute. Numerous researchers have studied children’s ability to quickly name pictures. When compared to normal developing peers, slower picture naming has been found in children with word-finding deficits (Dockrell, Messer, & George, 2001; Tingley, Kyte, Johnson, & Beitchman, 2003), learning disabilities (German, 1982), specific language impairment (Lahey & Edwards, 1996, 1999; McGregor, Friedman, Reily & Newman. 2002), language impairment (Leonard, Nippold, Kail, & Hale, 1983), poor reading comprehension (Nation, Marshall, & Snowling, 2001), and dyslexia (Snowling, van Wagendonk, & Stafford, 1988; Swan & Goswami, 1997). In fact, slow naming speed has been found to be predictive of reading difficulties (Menyuk, Chunick, Liebergott, Komgold,
D’Agostino & Belanger, 1991; Troia, Roth, and Yeni-Komshian, 1996). Furthermore, speed of naming has been shown to predict performances on phonological processing tasks and reading measures (Troia, Roth, & Yeni-Komshian, 1996).

Kolde and Sandiford (2006) conducted a study to look at the relationship between accuracy of visual representations and naming latency. Twelve normally developing kindergarteners were given a 50-word, picture-naming task. Responses were divided into shorter latency (< 1 second) and longer latency (> 1 second). Each child was asked to draw two pictures of words on which the child had a shorter naming latency, and two pictures on which the child had a longer latency. Ten adults were asked to identify the pictures that the children had drawn. The results indicated that adult reviewers had significantly more difficulty identifying drawings of longer latency words in comparison to drawings of shorter latency words. To sum, these children drew clearer pictures of words they identified quickly.

Recent research has shown that drawing and naming may share the same semantic storage. McGregor and Appel (2002) studied the ability of a 5-year-old child with specific language impairment to name and draw pictures. They found the child could better draw pictures that he could easily name, and words that were phonologically misnamed than words that were semantically misnamed. McGregor et al. (2002) compared the performance of normally developing children on drawing tasks to their ability to define the words drawn. They found that drawings of misnamed pictures were less accurate than drawings of accurately named pictures in young children ages 5 to 7. In a further study, McGregor, Newman, Reilly, and Capone (2002) found that objects named well were drawn and defined well, while objects named poorly were also drawn and defined poorly in both children with Specific Language Impairment (SLI) and their normally developing peers.

Writing and Drawing

Children as young as 3 years old have been shown to recognize the difference between the written word and pictures (Lavine, 1977). Older preschool children have also been shown to be able to differentiate a written sentence from one that has written letters and pictures arranged in a straight line (Tolchinsky & Levin, 1987). Children can begin to draw pictures to represent objects at around 4 years of age (Freeman, 1993) and children between five and eight years of age draw in order to render what they know about an object (Thomas & Silk, 1990). Drawings generally represent physical characteristics of objects. Furthermore, children can represent to some extent the location, functions, or actions of objects.
Previous research has supported the notion that children learn graphic elements through drawing; therefore, there are strong similarities between the drawing process and learning the rules of written language (Stetsenko, 1995). This is particularly intuitive given the fact that these two systems require fine motor hand movements. Thomas and Silk (1990) pointed out that because of the similarities of the two systems, it is plausible that children could have difficulty with both. However, it has been shown that preschool children understand that the two processes are different, and they approach writing and drawing with different plans of action. Brenneman, Massey, Machado, and Gelman (1996) found that preschool children’s actions indicate that they have an “implicate knowledge of the distinctive features of each notational system as a domain of knowledge” (p. 412). The children made distinctive marks when asked to write and draw. Even when children indicated that they did not know how to write, many would make markings on the paper that were linear and horizontal indicating an understanding that writing is organized.

Regardless of their understanding of the difference between the two systems, researchers have found that children often will mix writing and drawing as old as 6 years of age. In fact, when asked to write a letter or write to help them remember something later, many children used drawing or a mix of both writing and drawing to convey the message. Furthermore, 6-year-olds often rely on the size of a named object and/or length of a written word when choosing which of two written words match a spoken word. Adi-Japha and Freeman (2001) conducted a study to determine if there was a difference between the writing and drawing systems and at what age this occurs. They also wanted to see if activation of one system helped or hindered the other. The subjects were children ages 4, 6, 7, 9, and 12. They found that a writing-specific route emerges at around six years of age and hypothesized that this occurred because of the increase in writing practice.

Drawing, Math, and Reading Development

Young children use drawing to design models to explain their mathematical reasoning, which assists in their comprehension and communication of math concepts (Perry & Dockett, 2002). There is also evidence that math performance is related to early reading skills. A study of 564 first grade children, studying the efficacy of preventative tutoring to improve math performance, confirmed that math performance predicted important early reading skills such as phonological processing (Fuchs, Compton, Fuchs, Paulsen, Bryant & Hamlett, 2005). Kulp (1999)
conducted a study of 191 children kindergarten to third grade to examine the relationship between visual motor integration skill and reading, spelling, and math achievement ratings. Children’s performance on a visual analysis and visual motor integration task was significantly related to academic performance in 7, 8, and 9-year olds. There is also evidence that reading and math measures explain performance on state math tests from third to fifth grade (Jiban & Deno, 2007).

**Drawing and Learning**

Research has correlated drawing difficulties with learning disabilities (Mati-Zisi & Zafiropoulou, 2001; Mati-Zisi, Zafiropoulou, & Bonoti, 1998; Smith, 1994; Waber & Bernstein, 1994). Harvey and Henderson (1997) studied handwriting in children during their first three years of grade school. Results of their study suggested that handwriting in early years could possibly be used to predict general learning problems. In fact, writing and drawing have been included in qualitative diagnostic tools (Faure, Keuss, Lovette, & Vinter, 1994; Meulenbroek & Thomassen, 1991).

Bonoti, Vlachos, and Metallidou (2005) investigated school-aged children between the ages of 8 to 12 to determine if there was a relationship between writing and drawing performance. The children were asked to create four drawings (i.e., a man, a house, a man inside a boat, and a tree in front of a house). For writing tasks, the children were asked to perform spontaneous writing, copying, and writing to dictation. They found a statistically significant correlation between the drawing and writing tasks. Significantly, they found a difference between poor and proficient writers, with the strongest correlations being between writing and complex drawing tasks (e.g., a man inside a boat). This was related to previous research that poor writers have difficulties with temporal and spatial characteristics (Graham & Weintraub, 1996; Wann, 1987). Bonoti, et al. (2005) suggested that their results indicate a need for further research in drawing and handwriting. They felt that early drawing skills might be used to predict future handwriting problems. In fact, they suggested, “Drawing can be used as an early diagnostic tool, since before handwriting becomes an essential form of expression for children, they have to be familiarized with the use of the writing tool — a familiarization which begins by practice with drawing through preschool years” (p. 252).

This article describes an exploratory study examining the relationships between drawing ability, writing ability, and measures of early literacy and math development in kindergarten children. Specific research questions were:
1. Do the children have more accurate visual representations, as represented through drawings, of words with shorter naming latency versus words with longer naming latency?

2. Is there a relationship between drawing ability and early school year measure of early literacy and math?

3. Does drawing ability predict kindergarten children’s ability to write letters of the alphabet at the end of the school year?

Methods

Participants

Participants in this study were 20 children between the ages of 5 and 7 (mean = 5 years, 10 months) attending two kindergarten classrooms in Northern California. All children in the two classrooms were invited to participate in the study. Children invited to participate in the study and were included if they provided parental permission and were able to name pictures for the picture-naming portion of the study. The children represented a variety of socioeconomic backgrounds. Twelve of the children were Caucasian, four Hispanic, two African-American, and two were classified as “other.” Four of the children had English as their second language. Based on parent questionnaires, children had no known or suspected sensory, physical, emotional, psychological, or language impairments. Two children were identified as having an articulation disorder.

Data Sources

This year-long study had three data sources: a) kindergarten-mandated literacy and math assessment scores from the beginning of the school year, b) child drawings of common objects that were sorted initially as drawings of quickly named and slowly named words, and c) children’s letter formation at the end of the school year.

Kindergarten Assessments

The district-mandated kindergarten assessments were completed by the classroom teachers within the first two weeks of the academic school year. Testing was separated into two categories: literacy and math.
Early Literacy Assessments. The following four literacy assessments were completed:

1. Concepts of Print: ten concepts of print questions (e.g., directionality, one-to-one correspondence, return sweep, difference between letter and word) were asked of the children. The score for this assessment was the total number of correct responses.

2. Phoneme Awareness (rhyming): children were given a word and asked to provide another word that rhymed with it. They were given five words in total. The score for this assessment was the total number of correct responses.

3. Letter Identification (upper and lower): children were shown uppercase letters randomly written on a piece of paper. They were asked to identify each letter. The score for this assessment was the total number of uppercase letters identified. This was also completed with lowercase letters.

4. High Frequency Words: a list of 18 high frequency words were presented to the children typed on a piece of paper. Children were asked to read the words. The score for this assessment was the number of words read correctly.

Early Math Assessments. The following four math assessments were completed:

1. Pattern Identification: four patterns consisting of color and/or shape were shown to the children and they were asked to identify and complete each. The score for this assessment was the total number of patterns they could identify and complete.

2. Counting (to 100): children were asked to rote count as high as they could. The score for this measure was the highest number to which they could count without error.

3. Sorting: three sorting activities were provided to the children. The children are asked to sort objects based on two distinctions (e.g., color and shape). The total score was how many of the three tasks they could accurately complete.

4. Identifying Geometric Shapes: eight geometric shapes (e.g., square, diamond, circle) were provided to the children and they were asked to identify the shapes. The total score was the number correctly identified.
Child Drawing

The picture drawing task was completed during the middle of the second semester of school. Each child was seen on two occasions. During the first meeting, individual subjects were taken to a quiet room and shown a series of cards with color pictures of 25 one-syllable (e.g., blocks, slide) and 25 two-syllable words (e.g., football, sandwich). The child was asked to name the pictures as quickly as possible. The pictures were separated into two categories: words named quickly (< 1 second) and words named with latency (> 1 second). These variables are referred to as Quickly Named and Slowly Named, respectively throughout this article. Two pictures from each pile were then randomly selected. On the second visit, the children were asked to draw five pictures. Subjects were provided five, half pieces of paper and six markers. They were first asked to draw a picture of a tree, which was used to establish a baseline drawing ability for the adult reviewers. Subjects were then asked to draw four other pictures: two from the Quickly Named pictures and two from the Slowly Named pictures, which were presented in random order.

These drawings were analyzed by 50 adults enrolled in a teacher preparation program. The adults were asked to view the pictures and identify the drawings. They were first shown the picture of the tree and informed that it was a tree and were then shown the four remaining pictures. Each adult reviewer examined each remaining drawing and attempted to label what the child had drawn; they were not told what the children were asked to draw. Researchers compared the accuracy of adult reviewers labels with what the children were asked to draw. A correct response on the part of the adult reviewer was identified when there was a match between the label and what the child was asked to draw (referred to as an Accurate Label). An incorrect response was no label given or no match between the label and what the child was asked to draw (referred to as Incorrect Label). For each child, a score was determined for: (a) Accurate Labels Quickly Named: total number of accurate labels for quickly named words, (b) Accurate Labels Slowly Named: total number of accurate labels for slowly named words, and (c) Grand Total Accurate: total number of all words (Quickly Named and Slowly Named) with an accurate label.

As a post hoc analysis, a second viewing of the children’s drawings consisted of four adults who were blind to the purpose of the study. They were asked to rate the children’s drawings on a scale from one to five. A score of five indicated an accurate representation of the object, a three indicated a moderately accurate representation, and a one was an inaccurate representation. Raters were shown each picture and informed what the child had been asked to draw. Initially, raters viewed the pictures individually. Inter-rater reliability was above .84. This second group of raters were then asked to view the drawings as a group and reach consensus on a score for each drawing. Analysis was then conducted on the total score received on
the total of five drawings. This analysis was conducted regardless of whether the pictures were previously identified as Quickly Named or Slowly Named, due to the fact that there was no significant difference between identification of drawings by the 50 adults.

**Children’s Letter Formation**

At the end of the school year, teachers were asked to rate each child’s ability to write letters. Based upon a child’s generated work and teacher observation, the teachers rated each child’s ability to write the letters of the alphabet (upper and lowercase). This rating was on a four-point scale (four indicating an ability to correctly write all letters; one indicating an inability to correctly write any letters).

**Statistical Analysis**

Pearson product moment correlations were conducted (Moore, 2006). An alpha level of .05 was set to determine significance.

**Results**

**Adult Identification of Children’s Drawings Based on Latency**

Overall, the reviewers correctly identified 37% of the pictures drawn. The ability of adult reviewers to identify the pictures drawn by the children varied significantly across child and often between Quickly Named and Slowly Named words. For instance, for one child, Quickly Named picture drawings were identified 90 out of 100 times and his Slowly Named pictures were identified 74 of 100 times. For another child, the Quickly Named pictures were identified 17 of 100 times, while Slowly Named pictures were identified 47 of 100 times. For this study, there was no significant difference between adult identification of Slowly Named words in comparison to Quickly Named \[ \chi^2(225) = .234; p = .326 \].

**Early Literacy Assessments and Child Drawings**

Correlations were calculated to determine if there was a relationship between the child’s drawings (Accurate Labels Quickly Named, Accurate Labels Slowly Named, Grand Total Accurate Label) with the early literacy subtests of the district mandated kindergarten placement assessments (concepts of print, phoneme awareness (rhyming), letter identification (upper and lower), high frequency word). There were no significant correlations (see Table 1).
Table 1. *Pearson r Correlations for Quickly Named, Slowly Named, Total Identified and District Mandated Language Testing*

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Literacy Assessments</th>
<th>Quickly Named</th>
<th>Slowly Named</th>
<th>Total identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts of Print</td>
<td>.058</td>
<td>-.053</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td>Phoneme Awareness</td>
<td>.278</td>
<td>.261</td>
<td>.334</td>
<td></td>
</tr>
<tr>
<td>Letter ID Upper Case</td>
<td>-.151</td>
<td>.001</td>
<td>-.059</td>
<td></td>
</tr>
<tr>
<td>Letter ID Lower Case</td>
<td>.001</td>
<td>.104</td>
<td>.066</td>
<td></td>
</tr>
<tr>
<td>High Frequency</td>
<td>.153</td>
<td>.278</td>
<td>.277</td>
<td></td>
</tr>
</tbody>
</table>

All p levels above .05

**Early Math Assessments and Child Drawings**

Correlations were calculated to determine if there was a relationship between the child’s drawings (Accurate Labels Quickly Named, Accurate Labels Slowly Named, Grand Total Accurate Labels) with the math subtests of the district mandated kindergarten placement assessments (pattern identification, counting (100), sorting, identifying geometric shapes). There were no significant relationships (see Table 2).

Table 2. *Pearson r Correlations for Quickly Named, Slowly Named, Total Identified and District Mandated Math Testing*

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Math Assessments</th>
<th>Quickly Named</th>
<th>Slowly Named</th>
<th>Total identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patterns</td>
<td>-.137</td>
<td>.135</td>
<td>-.003</td>
<td></td>
</tr>
<tr>
<td>Count to 100</td>
<td>.169</td>
<td>.275</td>
<td>.279</td>
<td></td>
</tr>
<tr>
<td>Sorts</td>
<td>.160</td>
<td>.462</td>
<td>.390</td>
<td></td>
</tr>
<tr>
<td>Geometric shapes</td>
<td>.259</td>
<td>.398</td>
<td>.413</td>
<td></td>
</tr>
</tbody>
</table>

All p levels above .05

**Prediction of Letter Writing Ability and Child Drawings**

Correlations were calculated to determine if drawing ability predicted a child’s ability to write letters at the end of the school year. There was a significant relationship between Grand Total Accurate Labels by the adult reviewers and the children’s
ability to write upper and lowercase letters \((r = .683; p = .002)\). This was true also for the Slowly Named words \((r = .560; p = .016)\) and Quickly Named words \((r = .525; p = .025)\).

**Post Hoc Analysis**

Because of the lack of significant results between Slowly Named and Quickly Named words, a post hoc analysis was conducted. Four adults were asked to view the drawings and rate them on a scale from one to five, as discussed above. If it is true that writing the letters of the alphabet is related to the ability of children to coherently draw pictures (as identified by the ability of adults to name the picture), researchers hypothesized that it would be helpful to have more specific information in the form of a rating scale of drawing accuracy. Pearson \(r\) correlations were completed on all measures of the study (early literacy scores, math scores, letter writing, and the consensus of the raters). Significant results were found for the drawing accuracy rating when correlated with alphabet writing \((r = .563; p = .012)\) and sorting \((r = .622; p = .004)\) (see Table 3). Interestingly, significant results were also found for alphabet writing and sorting \((r = .738; p < .000)\), geometric shapes \((r = .506; p = .027)\), and rhyming \((r = .516; p = .023)\) (see Table 4).

**Table 3. Pearson \(r\) Correlations For Adult Ratings of Drawings and District Mandated Literacy and Math Assessments**

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Adult Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy Assessments</td>
<td></td>
</tr>
<tr>
<td>Concepts of Print</td>
<td>.244</td>
</tr>
<tr>
<td>Phoneme Awareness</td>
<td>.449</td>
</tr>
<tr>
<td>Letter ID Upper Case</td>
<td>.252</td>
</tr>
<tr>
<td>Letter ID Lower Case</td>
<td>.173</td>
</tr>
<tr>
<td>High Frequency</td>
<td>-.075</td>
</tr>
<tr>
<td>Math Assessments</td>
<td></td>
</tr>
<tr>
<td>Patterns</td>
<td>.186</td>
</tr>
<tr>
<td>Counts to 100</td>
<td>.323</td>
</tr>
<tr>
<td>Sorts</td>
<td>.622**</td>
</tr>
<tr>
<td>Geometric Shapes</td>
<td>.045</td>
</tr>
<tr>
<td>Writing Alphabet</td>
<td>.564*</td>
</tr>
</tbody>
</table>

\(p\) levels below .05; ** \(p\) levels below .01
Table 4. Pearson r Correlations For Alphabet Writing and District Mandated Literacy and Math Assessments

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Adult Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy Assessments</td>
<td></td>
</tr>
<tr>
<td>Concepts of Print</td>
<td>.333</td>
</tr>
<tr>
<td>Phoneme Awareness</td>
<td>.518*</td>
</tr>
<tr>
<td>Letter ID Upper Case</td>
<td>.362</td>
</tr>
<tr>
<td>Letter ID Lower Case</td>
<td>.351</td>
</tr>
<tr>
<td>High Frequency case</td>
<td>.290</td>
</tr>
<tr>
<td>Math Assessments</td>
<td></td>
</tr>
<tr>
<td>Patterns</td>
<td>.427</td>
</tr>
<tr>
<td>Counts to 100</td>
<td>.356</td>
</tr>
<tr>
<td>Sorts</td>
<td>.738**</td>
</tr>
<tr>
<td>Geometric Shapes</td>
<td>.506*</td>
</tr>
</tbody>
</table>

*p levels below .05; ** p levels below .01

Discussion

The purpose of this study was to determine if drawing ability in kindergarten children was related to naming ability, writing ability, and measures of early literacy and math. Unlike the study conducted by Kolde and Sandiford (2006), no significant results were found between drawing ability and naming latency. However, a correlation was found between drawing ability and ability to write the alphabet. This was consistent regardless of the rating system used. The first rating system required the adults to simply identify the picture. The second rating system had adults actually provide a rating to indicate the level of accuracy of the drawing. This is consistent with the findings of Bonoti et al. (2005). They found a significant relationship between writing and drawing for children 8 to 12 years of age. The children in this study were younger (kindergarteners), which indicates that drawing in young children as well as older children is vital when considering writing skills.

Interestingly, we found correlations between drawing ability and one of the district-wide kindergarten tests: sorting. In this test, children were asked to separate objects based on two distinctions (e.g., color and shape). Sorting was also related to the children’s ability to write letters of the alphabet. The sorting task as well as drawing and writing all require attention to shape and detail. We did not find correlations of drawing with other early literacy or math scores.
We did, however, find a relationship between writing the alphabet with sorting, geometric shapes identification, and rhyming. This finding supports research that indicates there is a relationship between mathematic reasoning and skill with phonological processing (Fuchs, et al., 2005). Sovik and Arntzen (1986) described dysgraphia as a learning difficulty that is unrelated to reading, spelling, and arithmetic, because it is a mechanical skill. We did not find this to be true for children who were considered normally developing in kindergarten. This is not to say that some of the children in this study may not be identified as learning disabled in the future.

It is possible that specific training in drawing may help children become more proficient in writing. In a study of second-generation Chinese preschool and kindergarten children and Caucasian-American children, Huntsinger, Schoeneman, and Ching (1994) found that the Chinese-American children were more advanced in both writing and drawing. They also found that the Chinese-American families spent more time daily on fine-motor skills. Family members specifically worked with the children on how to draw and write their names and numbers. Contrary to the researcher’s hypothesis, this work did not affect the children’s creativity. In fact, the Chinese-American children’s drawings were judged as more creative.

In this standards-based, high-stakes accountability era, supported and driven by such federal legislation as the No Child Left Behind act, increased pressure for children to reach higher and higher standards of literacy development can lead teachers to narrow their curriculum in order to meet standards and prepare for testing (Delandeshere & Arens, 2001). Because literacy standards for preschool have redefined teachers’ roles with very young learners (Bodrova, Leong, and Paynter, 1999), it is important for teachers to know that drawing need not be considered a deterrent from standards-teaching but is rather a support.

**Limitations of this study**

A few limitations of this study must be mentioned. Because we initially were looking to see if there was a difference between drawings of words named easily and those named with latency, the tree was the only drawing completed by all children. All other drawings were individualized. The objects ranged in difficulty with regards to complexity (e.g., blocks versus kite). Future studies will be conducted with consistent drawings by all children.

A second limitation of the study was the writing analysis. The district testing does not currently include specific writing testing and our own testing of writing
was limited, thus future studies should include more specific testing of this. Bonoti et al. (2005) scored writing on whether the letters were correctly placed on paper lines, the form of the letters, and whether capital and small letters were confused. This would need to be modified for younger children such as those in our study.

Future Study
A follow-up study is currently planned to evaluate more consistently the drawing abilities and writing skills of kindergarten children. Should future studies confirm the current relationship, an educational plan to include frequent and varied opportunities for drawing should be developed and tested.

References


**About the Authors:**

**Dr. Susan Steffani** is an assistant professor in Communication Sciences and Disorders at California State University, Chico. She worked as a speech pathologist for Head Start for three years and has been a professor for 15 years. Her areas of interests are child language disorders, diagnosis, and treatment.

**Dr. Paula M. Selvester** is an Associate Professor in the Department of Education at California State University, Chico. She has taught early literacy methods for 15 years, both internationally and locally. Her interests are teacher preparation, literacy development, and second language acquisition.
Reading Comprehension Strategies in Secondary Content Area Classrooms: Teacher Use of and Attitudes Towards Reading Comprehension Instruction

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Abstract
The purpose of this mixed methodology study was to identify the frequency of reading comprehension instruction in middle and high school social studies and science classrooms. An additional purpose was to explore teachers’ perceptions of and beliefs about the need for reading comprehension instruction. In 2,400 minutes of direct classroom observation, a total of 82 minutes (3%) of reading comprehension instruction was observed. The qualitative findings reveal that teachers did not feel qualified or responsible for providing explicit instruction on reading comprehension. Teachers pointed to the pressure to cover content in preparation for state standardized tests as barriers to providing reading instruction.

In today’s middle and high schools, a significant number of students struggle with the complex academic and literacy tasks they encounter in their content area classes. According to the Alliance for Excellent Education, approximately 8 million students in grades 4-12 read well below grade level (Heller & Greenleaf, 2007). Of those struggling secondary readers, nearly 70% struggle with reading comprehension (Biancarosa & Snow, 2006). For the purpose of this study, reading comprehension will be defined as, “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002, p. 11). The academic importance of reading comprehension cannot be understated,
leading researchers to claim that, “the most important thing about reading is comprehension” (Gambrell, Block, & Pressley, 2002, p. 3).

There is clear evidence that reading comprehension instruction is highly beneficial for students of all levels. When teachers explain and model a single comprehension strategy or multiple strategies, as well as provide guided and independent practice with feedback until students begin to use the strategy independently, the reading levels of middle and high school students improve (e.g. Biancarosa & Snow, 2006; Collins, 1991; Deshler, Ellis, & Lenz, 1996; National Reading Panel, 2000; Rosenshine & Meister, 1996; Schorzman & Cheek, 2004; Stevens, 2003; Wood, Winne, & Carney, 1995). As a result of such convincing evidence, perhaps the most widely cited recommendation for improving reading comprehension is increasing explicit instruction in comprehension strategies (National Reading Panel, 2000). In its report, the National Reading Panel (NRP) (2000) highlights the importance of comprehension strategy instruction, explaining, “The idea behind explicit instruction of text comprehension is that comprehension can be improved by teaching students to use specific cognitive strategies or to reason strategically when they encounter barriers to comprehension when reading” (p. 4-39). Highlighting the importance of comprehension instruction, the NRP (2000) found research evidence for the following eight reading comprehension strategies.

1. **Comprehension monitoring** in which the reader learns how to be aware or conscious of his or her understanding during reading and learns procedures to deal with problems in understanding as they arise.

2. **Cooperative learning** in which readers work together to learn strategies in the context of reading.

3. **Graphic and semantic organizers**, which allow the reader to represent graphically (write or draw) the meanings and relationships of the ideas that underlie the words in the text.

4. **Story structure** from which the reader learns to ask and answer who, what, where, when, and why questions about the plot and, in some cases, maps out the time line, characters, and events in stories.

5. **Question answering** in which the reader answers questions posed by the teacher and is given feedback on the correctness.
6. **Question generation** in which the reader asks himself or herself why, when, where, why, what will happen, how, and who questions.

7. **Summarization** in which the reader attempts to identify and write the main or most important ideas that integrate or unite the other ideas or meanings of the text into a coherent whole.

8. **Multiple strategy instruction** in which the reader uses several of the procedures in interaction with the teacher over the text. Multiple-strategy teaching is effective when the procedures are used flexibly and appropriately by the reader or the teacher in naturalistic contexts. (p. 4-6)

Furthermore, evidence shows that reading instruction in specific domains, such as science (Barton, Heidema, & Jordan, 2002; Greenleaf, Brown, & Litman, 2004; Norris & Phillips, 1994) and social studies (Mosborg, 2002; Perfetti, Britt, & Georgi, 1995) can improve student understanding and learning. In spite of this evidence, teachers are often reluctant to provide explicit reading comprehension instruction in their secondary classrooms. Teachers point to the lack of instructional time and the pressure to cover content as barriers to literacy instruction (Bulgren, Deshler, & Schumaker, 1997; Bulgren, Deshler, Schumaker, Lenz, 2000; Deshler, Schumaker, Lenz, Bulgren, Hock, Knight, et al., 2001; O’Brien, Stewart, & Moje, 1995; Scanlon, Deshler & Schumaker, 1996). Additionally, in seeing themselves as content specialists, secondary teachers may feel that it is not their job to teach reading (Greenleaf, Schoenbach, Cziko, & Mueller, 2001).

### Purpose of the Present Study

Despite the evidence highlighting how effective comprehension promotes student achievement, such instruction appears to be a rare event rather than the instructional norm (Block & Pressley, 2002). In her milestone work, Durkin (1978-79) noted that less than 1% of instructional time was used for comprehension strategies in elementary classrooms. Though these findings have been extended to the upper elementary level (Hodges, 1978; Pressley, Wharton-McDonald, Hampston, & Echevarria, 1998), this work has yet to be extended to middle and high schools, leaving researchers to wonder about the degree of reading comprehension instruction in content area classrooms as well as teachers’ perceptions about the necessity of such instruction (Trabasso & Bouchard, 2002).
The purpose of the present study was to examine the extent to which secondary teachers included explicit comprehension strategies in routine classroom instruction. Additionally, in collecting qualitative data, the researcher hoped to give voice to teachers’ attitudes, perceptions, and beliefs about reading comprehension instruction in content area classrooms. In examining the instructional practices of four middle school content area teachers and four high school content area teachers, the following questions were addressed.

1. To what degree do middle and high school content area teachers incorporate reading comprehension strategies in their science and social studies classrooms?

2. What are teachers’ attitudes towards the need and usefulness of reading comprehension instruction in content area classrooms? What factors influence these attitudes?

Underpinning this research is the belief that reading comprehension instruction is particularly important to middle and high school students as they encounter informational text in their content area classes. Recently, multiple research reports (Alvermann, 2001; Biancarosa & Snow, 2006; Kamil, 2003; Heller & Greenleaf, 2007; Torgesen, Houston, Rissman, Decker, Roberts, Vaughn, et al., 2007) have endorsed reading comprehension instruction as a significant way to improve students’ retention and understanding of the domain-specific information in secondary content area classrooms. With regard to comprehension instruction in secondary classrooms, experts recommend the following: “Continue to teach comprehension processing for as long as students need it. Certainly, that means at least middle and high school” (Pressley & Block, 2002, p. 390).

**Methodology**

This mixed methodology study occurred during three consecutive months in the 2005-2006 academic year. Data was collected in two phases: Phase I with a quantitative focus, and Phase II with a qualitative focus. The target population for this study consisted of four middle school teachers and four high school teachers in public schools.

**Setting**

Data collection occurred at two rural schools in Virginia: 1) Pine Wood Middle School, housing 430 students in grades 6-12, and 2) Pine Wood High
School, housing 782 students in grades 9-12. According to recent census reports, the surrounding county had a population of 15,244 people, with a racial makeup of 90.99% White, 6.45% African American, 0.19% Native American, 0.45% Asian, and 1.32% Latino. The median household income was $45,931, with 6.6% of the population living below the poverty line. The only middle and high school in the county, Pine Wood Middle and Pine Wood High Schools, shared conjoined campuses, with nearly 100% of middle school students continuing onto the high school. These two schools were selected because of their mixed-level classes, their high rates of student retention and graduation, their prioritizing reading and writing across the curriculum in school improvement plans, and their high-stakes test scores at or above state averages.

At Pine Wood Middle School, 25% of students participated in the federal free lunch program. Approximately 1.7% of the student body received English as a Second or Other Language (ESOL) support. Based on a school-wide initiative to assess readers using the Bader Reading and Language Inventory (2004), 28% of students read on grade level, 32% read above grade level, and 40% read below grade level. Pine Wood Middle School classes were 45 minutes in length. At Pine Wood High School, 15% of students participated in the federal free lunch program. Approximately 1% of the student body received English as a Second or Other Language (ESOL) support and nearly 45% of matriculating seniors continue on to two- or four-year colleges. Based on the Bader Reading and Language Inventory (2004), 65% of students read on grade level, 15% read above grade level, and 20% read below grade level. Pine Wood High School classes were 90 minutes in length meeting every other day.

Participants

A stratified purposeful sampling approach was chosen for this study. In August 2005, a total of 23 secondary science and social studies teachers were contacted by both letter and email asking for their participation. So as to not influence teacher participation or later classroom observations, teachers were told that the purpose of the study was to observe teachers’ instructional strategies in content area classrooms. Ten teachers agreed to the study; purposeful sampling secured eight total participants: two middle school science teachers, two middle school social studies teachers, two high school science teachers, and two high school social studies teachers. Prior to the study, the researcher had no relationship with any of the teacher participants. All of the teachers held state certifications in their content
areas. Since earning their teaching certification, only four participants had completed additional graduate classes in assessment and special education. See Table 1 for data on the eight participants.

**Table 1. Participants**

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Subject Area</th>
<th>Grade Level</th>
<th>Total Years Teaching</th>
<th>Age at time of Study</th>
<th>Gender</th>
<th>Race</th>
<th>Area of Certification</th>
<th>Highest Degree Held</th>
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</thead>
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<td>1</td>
<td>Earth Science</td>
<td>6</td>
<td>1</td>
<td>23</td>
<td>Female</td>
<td>White</td>
<td>Secondary Education (6-12) with Natural Sciences Endorsement</td>
<td>M.Ed.</td>
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<tr>
<td>2</td>
<td>Physical Science</td>
<td>8</td>
<td>11</td>
<td>65</td>
<td>Female</td>
<td>White</td>
<td>Secondary Education (6-12) with Humanities Endorsement</td>
<td>M.Ed.</td>
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<tr>
<td>3</td>
<td>World Geography</td>
<td>8</td>
<td>6</td>
<td>29</td>
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<td>White</td>
<td>Middle Grade with Social Studies Endorsement</td>
<td>J.D.</td>
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<td>World Geography</td>
<td>8</td>
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<td>Middle Grade with Humanities &amp; Social Science Endorsement</td>
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<td>8</td>
<td>50</td>
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<td>M.Ed.</td>
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<td>6</td>
<td>Earth Science</td>
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<td>United States History</td>
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<td>J.D.</td>
</tr>
<tr>
<td>8</td>
<td>World History and Geography</td>
<td>10</td>
<td>8</td>
<td>37</td>
<td>Male</td>
<td>White</td>
<td>Secondary Education (6-12) with Social Science Endorsement</td>
<td>M.Ed.</td>
</tr>
</tbody>
</table>

**Data Sources and Collection**

Data came from two sources: 1) 2,400 minutes of direct classroom observation over a three-month period, and 2) open-ended teacher interviews subsequent to the completion of classroom observations.
Phase I: Direct Classroom Observations

To determine the frequency of reading comprehension instruction in eight secondary content area classrooms, the researcher observed 2,400 minutes of classroom instruction. Each teacher was observed for a total of five hours, broken into thirty-minute increments. To arrange mutually convenient observation times, the teachers were contacted through email, phone calls, and notes prior to each session. As a result, teachers were fully aware in advance of my coming into the classroom.

To examine the teacher inclusion of reading comprehension instruction, a coding system was modified from previous work (Coyne, 1981; Durkin, 1978-1979). Because my focus of investigation was reading comprehension instruction, I adapted previous coding systems by eliminating irrelevant codes, modifying codes, and adding codes specific to reading comprehension instruction. Two categories of codes were created: 1) Non-comprehension Instruction, and 2) Comprehension Instruction. Table 2 provides an overview of the codes, with additional information available in Appendix A.

Table 2. Classroom Observation Coding System

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-comprehension Instruction</td>
<td>Didactic Instruction of New Material (DI-N)</td>
</tr>
<tr>
<td></td>
<td>Didactic Instruction of Review Material (DI-R)</td>
</tr>
<tr>
<td></td>
<td>Assignment (AS)</td>
</tr>
<tr>
<td></td>
<td>Transition (TR)</td>
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<tr>
<td></td>
<td>Non-instruction (NI)</td>
</tr>
<tr>
<td></td>
<td>Participatory Approach (PA)</td>
</tr>
<tr>
<td>Comprehension Instruction</td>
<td>Question Answering (CI-QA)</td>
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<td></td>
<td>Multiple Strategies (CI-MS)</td>
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The Comprehension Instruction codes, taken from the NRP’s (2000) meta-analysis, were selected because of the strong body of research proving their efficacy. In order to be coded as Comprehension Instruction, the teacher had to not only
provide it but also give some explanation for how, when, and why to employ the comprehension strategies. More specifically, the Comprehension Instruction codes were used when one or more of the following teacher behaviors occurred (Duke & Pearson, 2002):

- An explicit description of the strategy and when and how it should be used.
- Teacher and/or student modeling of the strategy in action.
- Collaborative use of the strategy in action.
- Guided practice using the strategy with gradual release of responsibility.
- Independent use of the strategy. (pp. 208-210)

Non-comprehension Instruction codes included other routine classroom instruction, such as the giving and completion of assignments, teacher-led lectures and presentation of content, and transition between classroom activities. The Didactic Instruction codes (Didactic Instruction of New Material and Didactic Instruction of Review Material) emerged from Alvermann (2002), who noted that teacher-centered instruction, also referred to as the transmission approach, dominates middle and high school instruction. In Didactic Instruction, the teacher presents information to students through lectures, PowerPoint presentations, and structured note-taking. The Assignment code (AS) pertained to instances when giving and completing in- and out-of-class assignments. In the Participatory Approach code (PA), students acted as the conveyors of information as they worked in small groups or gave oral presentations of projects and research papers. The Transition code (TR) marked instances when the teacher gave transitory directions, including taking out or putting away materials and shifting instructional topics. The Non-Instruction code (NI) noted times when the teacher was not engaged in instructional behavior which included recording grades, behavior management, or off-task conversation.

While observing the class, teacher behavior was coded in 30 second increments adapted from similar protocols (Taylor, Pearson, Clark, & Walpole, 1999). Only one code for each interval was allotted; in the rare instances when multiple codes were observed, the most prevalent behavior was coded. In addition to recording codes, qualitative notes were made about the instruction in that interval, including teacher directions, materials used, and student behaviors. This process was repeated for the 30-minute duration of observation. Also, being cognizant that
teachers often follow a daily classroom routine, observation times were scattered so each teacher was observed during a variety of periods at a variety of times.

Because of the heavy reliance on the definition of codes in this study, a reliability check was performed prior to formal observations. A video of a secondary content area classroom was obtained and independently coded for this video. The results were then compared to the coding of the same video by a doctoral student well versed in statistics and classroom observations. These checks established an intracoder reliability of 0.92.

Phase II: Teacher Interviews. In the second phase of the larger study, the same eight teachers were interviewed during hour-long, open-ended interview sessions. The purpose of the interviews was to examine teachers’ instructional strategies with regard to content area literacy and reading comprehension. Teachers were asked to define and explain the reading comprehension instruction they provided, to discuss their beliefs about reading and literacy in their classrooms, and to explain their instructional priorities and challenges. All interviews were recorded and transcribed, which were member-checked as participants confirmed their interview transcripts.

Data Analysis

Quantitative data was analyzed using a three-step process: 1) the total comprehension instruction across all eight teachers, 2) the total comprehension instruction across science and across social studies teachers, and 3) disaggregating the data by individual teachers. Data was examined by the means and standard deviations for the total of reading comprehension instruction, as well as disaggregated by content area, grade level, and individual teacher.

In analyzing the teacher interviews, Patton’s (1990) framework was applied. In Phase I, informal analysis, interviews and notes recorded in classroom observations were read. In Phase II, coding, all data sources were reread with analytic memos added. In Phase III, initial category creation, potential categories that emerged from data were gathered. In Phase IV, category confirmation, the coding process of data continued to establish positive and negative cases for each category. In Phase V, conferencing, categories across multiple data sources were confirmed and, if necessary, resolved discrepancies with participants through triangulation.
Reading Comprehension Instructional Findings

The overarching intent of this study was to examine the frequency of reading comprehension strategy instruction in secondary content area classrooms, as well as to give voice to teachers’ beliefs about reading comprehension instruction. In 2,400 minutes of instruction, a total of 82 minutes of reading comprehension instruction occurred. Thus, over the course of this study, reading comprehension instruction comprised only 3% of classroom observations. In order to show how classroom instruction occurred in secondary content area classrooms, Figure 1 and Table 3 tally and depict the results from classroom observations of all eight participants.

Figure 1. Percentage Breakdown of Classroom Instruction
Table 3. Breakdown of Classroom Instruction Across Eight Participants

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</table>

Phase I Findings

Of the reading comprehension instruction that occurred, the reliance on only three comprehension strategies was noted: Text Structure, Question Answering, and Summarization. Of these three, Question Answering was most prevalent, with 62 minutes overall. The use of Text Structure as a reading comprehension strategy occurred in middle school science and social studies and high school science classrooms, for a total of 18 minutes. Lastly, two minutes of Summarization as a reading comprehension strategy occurred in one middle school social studies classroom.

Reading Comprehension in Middle School Classrooms

Of 600 total minutes observed in middle school social studies classrooms, reading comprehension strategies made up 60 minutes (10%) of instruction. Reading comprehension instruction in middle school social studies classrooms far exceeded comprehension instruction in other grades and in science classes. Though reading comprehension instruction was highest for middle school social studies teachers, only one teacher, Teacher 4, provided reading comprehension instruction.
By far, the most heavily favored reading comprehension strategy was Question Answering, with 48 minutes of inclusion in these middle school classrooms. Teacher 4 led the class in orally answering the questions taken directly from the end of the chapter, then providing feedback about the correctness of students’ answers. After concluding a chapter, he then directed students to independently work on questions from the end of the chapter. Teacher 4 used Text Structure as a comprehension strategy, primarily through coaching students on how to examine maps, bold type, and chapter titles and subtitles. In a geography lesson on third world countries, the teacher called students’ attention to charts, graphs, and pictures in a textbook chapter on the factors that impact global life expectancy. In that same class, Teacher 4 assisted students in reading bar graphs and pie charts, explaining, “Let’s examine the pie chart. What information does it give us? Why did the publisher include it on this page?” The same teacher also provided two minutes of instruction on Summarization. In a lesson on latitude and climate zones, he led whole-group practice in “summing up what the chapter tells us about precipitation and climate zones.” As students raised their hands to orally summarize the reading, the teacher provided feedback to the students about omitted material of importance.

**Reading Comprehension in High School Classrooms**

Of 600 total minutes observed in high school social studies classrooms, no explicit instruction on reading comprehension strategies occurred. In that same time, reading comprehension instruction accounted for only three minutes (0%) of instruction. Similar to the middle school science classrooms, high school science teachers relied only upon teaching Text Structure and Question Answering. During instruction on climate zones, high school science students worked in small groups to research the temperature, climate controls, latitude and longitude, and average precipitation of a predetermined city. During this activity, Teacher 5 instructed students to look at information provided in textbook tables and charts. She asked students, “What information can we gather from that chart? Remember, it’s there for a reason, not just to fill up space.”

**Reading Comprehension Instructional Findings**

Thus, in disaggregating a total of 82 minutes of reading comprehension instruction, the data indicated that more reading comprehension instruction occurred in middle school classrooms (79 minutes total) than in high school classrooms (three minutes total). Additionally, social studies teachers were more likely to
incorporate reading comprehension instruction (60 minutes) than science teachers (22 minutes). Of the eight NRP (2000) reading comprehension strategies, middle and high school content area teachers favored three: Question Answering (62 minutes), Text Structure (18 minutes), and Summarization (two minutes).

Phase II Findings

Responses from teacher interviews provided a wealth of information to explain why reading comprehension instruction was essentially absent in these classrooms. The following categories describe the teachers’ responses.

Teachers’ Understandings of Literacy and Reading Comprehension

All participating teachers espoused their beliefs that reading was a vital part of their classroom instruction, as exemplified by a high school history teacher’s statement, “Reading is very important because being able to read is the key to the student’s success. It helps them remember and be able to understand the material when it is discussed in class.” Though teachers understood and promoted the importance of literacy in their classroom, some participants did acknowledge that they did not provide explicit reading comprehension instruction. A high school science teacher admitted, “We don’t really talk strategies in my class. I operate under the assumption that they can read it. If they get stuck, I’ll help them, but I’m not spending a lot of time getting them to read.” Accordingly, data from Phase I indicated this teacher provided no comprehension instruction during five hours of observation.

On the other hand, three of the eight teachers pointed out that they do provide reading comprehension instruction. Their self-reported reading comprehension strategy instruction largely included discussion of text and answering text-based questions. One high school history teacher, who provided no comprehension instruction during Phase I observations, explained, “I assign independent reading. We go over it by reading aloud and answering questions. Discussion of the readings the next day let me see if they understood the text.”

Furthermore, when asked about what reading comprehension instruction meant, teachers expressed uncertainty. A middle school science teacher explained, “I often try to guide them through readings, although I am not sure if that helps reading comprehension.” Other participants equated comprehension instruction with assessing whether their students understood text. A middle school social studies teacher noted, “I help students comprehend the text by asking them about
the text. If they know they are held responsible for the content, students are more likely to take the time to focus on understanding the reading.” Absent in their discussions about reading comprehension instruction were explanations of teacher-led think-alouds to model reading strategies, explicit explanations for when and why to use strategies, or coaching students on how to apply strategies to their independent reading.

Content Coverage as an Instructional Priority

These middle and secondary teachers saw their major instructional responsibility to be covering their particular content in preparation for state standardized tests, and as such, identified themselves by their content area. Overwhelmingly, teachers identified covering content as their most pressing instructional priority. For example, a high school science teacher reasoned, “Teachers are so test-driven. We have an enormous amount of information to pour into students’ heads in order to fulfill the yearly requirements of the state standardized test.” In fact, five of the eight teachers ranked content coverage in preparation for state tests as their most pressing instructional priority. No doubt the pressure that teachers felt to cover content was closely aligned with the need to successfully pass state standardized tests.

Teachers’ Self-Identifications as Content Specialists

The secondary teachers in this project identified themselves as content specialists, and as such, may have shirked any responsibility for reading comprehension instruction. One high school social studies teacher identified himself as a content teacher, explaining, “I’m not a reading specialist, so I’m not able to do all the things they say. If I did all those things, after a while I’d be a reading specialist and not a science teacher.” Another high school teacher professed that reading comprehension instruction was not her responsibility. “The role of the secondary teacher should be to improve reading but not have to teach reading comprehension at the high school level.”

Reading Comprehension Detracting from Content Coverage

With the pressure to cover content, several teachers in this study saw comprehension instruction as an instructional burden which detracted from instructional time. Consider the following statements:
“Content area teachers don’t have time to teach students how to read. We have to get them to get the content. As long as they can read and answer the questions on the SOL test, I don’t worry about reading.” (Teacher 8)

“My priority is to teach the students the science curriculum to the best of my ability while fostering a love for science. It is hard to take time to focus on reading in a content area classroom.” (Teacher 2)

“I’m quick to assess whether students can read the text, but I don’t have time to work on their weaknesses. We have to move on to expose them to everything on the test. Content teachers don’t provide more reading instruction because of standardized testing. I don’t have the time to sit and teach students how to read. Although it’s beneficial in the long run, I’d have to give up instructional time to teach my content.” (Teacher 4)

It appears that teachers in this study saw reading comprehension as an instructional add-on, rather than a way to promote students’ understanding and retention of content.

Lack of Training in Reading Comprehension Instruction

Teacher participants also pointed to their lack of professional knowledge and training as barriers to reading comprehension instruction. One middle school social studies teacher explained, “My students have to be able to read. However, I’m not qualified to teach them how to read. In my training, I didn’t learn to teach children to read. I never felt comfortable working with reading.”

Thus, it appears that these middle and high school teachers were unlikely to provide reading comprehension for several reasons: 1) their belief that reading comprehension instruction would detract from content coverage and preparation for state testing, 2) their self-identification as content specialists, and 3) their lack of training and confidence regarding reading instruction.

Limitations of the Study

Readers must keep in mind the possible limitations that might have impacted the internal and external validity of this study. Foremost, the sample size of eight participants is small. Though the amount of observational time was carefully considered and compared to similar research, 2,400 minutes of classroom observations...
may not have been sufficient to see comprehension instruction in action in content classrooms. In addition, observation time could have been configured in very different ways. For instance, rather than devote five hours to eight teachers, more teachers could have been observed for shorter time periods. Additionally, despite efforts to standardize the coding system, observational study inherently may have a subjective nature. Lastly, the mere presence of a researcher and the nature of observation itself may influence teacher instruction. Teachers’ behaviors might have been altered because of researcher presence.

Discussion and Implications

The primary reason for conducting this research was to determine the frequency of reading comprehension instruction in middle and secondary content area classrooms and how teachers’ perceptions of reading comprehension influenced their instructional decisions. Findings indicate that reading comprehension instruction in social studies and science classrooms was essentially absent because these teachers saw reading comprehension as a time-consuming detraction from their content coverage, or doubted their responsibility for or skill in providing such instruction.

The data from this study seem to suggest that middle and secondary teachers are uncertain about the what and the how of reading comprehension instruction. When asked to define reading comprehension instruction, teachers pointed to discussing text, answering questions about text, and assessing students to determine whether they understood text. The use of only three of eight National Reading Panel (2000) reading comprehension strategies suggests that teachers in the study may not have a sense of the wide range of possibilities within reading comprehension strategy instruction.

Furthermore, teachers’ knowledge of how to teach such strategies was equally narrow. Students learn how to apply reading comprehension strategies through explicit descriptions of strategies, teacher explanation of how, when, and why to apply particular strategies, teacher modeling, guided practice, and gradual release of instructional responsibility until independent use of the strategy is established (Dole, 2000). Even when teachers in this study did provide reading comprehension instruction, they merely directed students to use the strategy, not how or why to do so. For instance, rather than coaching students how and why to use Question Answering as a comprehension strategy, one middle school social studies teacher
responded only to the correctness of students’ responses. It is possible that teachers in this study provided explicit instruction in reading comprehension strategies earlier in the school year. It is also possible that students already knew how to rely on some of these approaches and that, at the time of my observations, students were already able to use these strategies independently. Still, Duke and Pearson (2002) remind us that in effective comprehension instruction, teachers coach readers each time they approach the text.

Yet another possibility is that teachers in this study found comprehension instruction beyond their professional expertise. Walker (2005) explains that, “Because comprehension is a complex process, teachers are mystified when demonstrating how to construct meaning using content knowledge and comprehension strategies” (p. 688). In any case, absent in both participants’ teaching and in their interviews was evidence of explicit instruction in a wide variety of reading comprehension strategies.

It is also possible that teachers in this study did not provide comprehension instruction because they viewed it as a time-consuming burden. Multiple teachers pointed to the lack of instructional time as an obstacle to reading comprehension. These findings echo previous literature in which teachers felt that they did not have enough time to include reading instruction into their classroom routines (Bulgren, Deshler, & Schumaker, 1997; Bulgren et al., 2000; Deshler et al., 2001; Scanlon, Deshler & Schumaker, 1996). If teachers do not understand how or why to teach reading comprehension, they may be unlikely to give up any precious instructional time to provide such instruction.

The minimal inclusion of reading comprehension strategies would appear to have implications for teaching preparation and on-going professional development. Firstly, it may be prudent to make significant improvements in how we train secondary teachers as they enter the field. In Virginia, where this study occurred, candidates pursuing secondary (6-12) licensure are required to take only three semester hours of reading across the curriculum. Secondly, the majority of states require only one course in literacy across the curriculum (Heller & Greenleaf, 2007). This minimal coursework may not be enough to expose content area teachers to the instructional importance of reading comprehension.

We cannot overlook the possibility that secondary teachers may come to the field because of their love for a particular domain of knowledge. Schools of education and teacher training programs would be wise to encourage future teachers to see the possibility of content area literacy integration. Moje (1996) explains that
unless content literacy methods courses provide pre-service teachers with classroom contexts and reflective opportunities, these future educators may remain unconvinced of the importance of reading instruction. Thus, teacher training programs may need to show a high school biology teacher or a middle school social studies teacher how reading comprehension instruction can support, extend, and improve student learning.

Just as teacher education programs must highlight the need for and opportunity for reading comprehension instruction, professional development must do the same for in-service teachers. In-service teachers must have meaningful professional development, including mentoring and coaching to allow them to see the realm of possibilities in reading comprehension. Such professional development initiatives may be a vast change from the status quo, as researchers Heller & Greenleaf (2007) explain, “Relatively few of the nation’s secondary school teachers have had meaningful opportunities to learn about the reading and writing practices that go on in their own content areas” (p. 18). These professional development opportunities will be even more significant if they encourage inquiry-based teacher reflection (Jacobs, 2002). Jacobs (2002) points out that though the majority of in-service professional development opportunities provide teachers with a plethora of reading strategies, these opportunities rarely ask teachers to critically examine how literacy may come to support their instructional goals.

Truly meaningful professional development opportunities may provide secondary teachers with an understanding of how reading comprehension strategies are beneficial for students’ understanding and retention of content. We must keep in mind that improving teachers’ knowledge of effective reading comprehension instruction is a long-term project. Pressley & El-Dinary (1997) indicate that it takes about a year to become proficient in teaching reading comprehension, and that teachers must understand such instruction quite well before successful implementation (e.g. Brown, Pressley, Van Meter, & Schuder, 1996). Fortunately, when secondary teachers do receive intensive professional development that emphasizes reading instruction in content areas, the results are promising (Greenleaf & Schoenbach, 2004). Until middle and secondary teachers view reading comprehension instruction as a crucial means to content acquisition, reading comprehension in middle and secondary content area classes may be pushed aside.
Suggestions for Future Research

In order to gain a more comprehensive picture of reading comprehension in content classrooms, the research reported in this study must be replicated across a larger number of teacher participants and across schools set in different contexts. It would also be beneficial to replicate this study in states which require more pre-service reading coursework than the three semester hours required in Virginia, where this study occurred. More research on whether teachers’ explicit instruction of reading comprehension strategies impacts student outcomes, such as performance on standardized tests, is needed. There also appears to be research opportunities which contrast students’ performance from teachers who actively pursue professional development opportunities in literacy comprehension instruction against teachers who do not.

Conclusion

Just as elementary teachers provide minimal reading comprehension instruction (Durkin, 1978-79; Pressley et al., 1998), middle and secondary teachers are equally unlikely to utilize their instructional time to explain, model, and coach students through reading strategies. Unless avenues of teacher training and professional development convince teachers of the value of reading comprehension instruction, content coverage may trump the explicit strategy instruction which promotes students’ understandings of text.

References


**About the Author:**

**Molly Ness** is an assistant professor at Fordham University’s Graduate School of Education, where she teaches masters and doctoral classes in language and literacy. She holds a doctorate in Reading Education from the University of Virginia.
Appendix A

Classroom Observation Coding Protocol

CODE: The category in which the observed behavior occurs.

DI-NI: Didactic Instruction: New Information
Here the teacher orally leads the class in delivering content area information, through PowerPoint, overhead projector, or lecture. Teacher behavior here focuses on information presentation. This may also include the teacher orally reading from informational or narrative text. This may also include the teacher presenting vocabulary, activating background knowledge, and setting a purpose for reading.

DI-R: Didactic Instruction: Review Material
Here the teacher leads students in a review of past material. This may include review games, asking questions, or working on test/quiz study guides. This code is also used when the teacher leads the class in reviewing answers from past tests, quizzes, or assignments.

PA: Participatory Approach
This code is reserved for instances in which students present information to the class or act as conveyors of information. As defined by Jetton and Alexander (2004), the participatory approach provides students with learning opportunities that promote peer collaboration and increase the likelihood that students will construct knowledge for themselves.

AS: Assignment
The teacher checks, gives, or assists students with an assignment. The assignment may be in-class or outside of school, and includes both assignments focusing on reading and assignments focusing on content material. Assignments may also include the teacher leading students in a writing assignment. This code also includes the teacher giving tests, reviewing homework or classwork assignment, and conferencing with students on individual work. In these assignments, students work independently without teacher-centered instruction.

TR: Transition
The teacher gives transitory directions, including taking out or putting away materials and shifting instructional topics.

NI: Non-Instruction
This code is used when the teacher is not engaged in instructional behavior. This may include recoding grades, behavior management, or Non-Instructional conversation. This may also include announcements and material distribution.

CI-QA: Comprehension Instruction – Question Answering
The teacher asks students to answer questions from the text as a comprehension strategy. Students independently search for answers in the text. Here the teacher provides feedback of the correctness of student responses.
CI-QA: Comprehension Instruction – Question Generation
The teacher asks students to generate questions from the text as a comprehension strategy. Questions can be of the who, what, why, when, where, and how nature. In addition to posing questions, students are responsible for answering them.

CI-S: Comprehension Instruction – Summarization
The teacher asks students to summarize informational text either orally or in writing. Here the teacher asks students to identify the main ideas and central points in a text.

CI-GO: Comprehension Instruction – Graphic Organizers
The teacher employs graphic organizers as a means for students to process and comprehend text. Graphic organizers can include any type of visual or semantic organizers intended to assist students with comprehension and to understand the meanings and relationships in text. This can include guided practice or independent practice.

CI-CO: Comprehension Instruction – Cooperative Learning
The teacher gives students independent practice in cooperative learning, where readers apply comprehension strategies together. This may include small groups or partners reading and comprehending texts together.

CI-CM: Comprehension Instruction – Comprehension Monitoring
Here the teacher asks and encourages students to be metacognitive and aware of their understanding during reading. The teacher provides students with fix-it strategies to deal with such problems. Comprehension monitoring can include teacher-led think-alouds. Additional comprehension monitor includes teacher-generated discussions of comprehension difficulties and application of strategies.

CI-TS: Comprehension Instruction – Text Structure
The teacher provides students with information on how to use narrative and informational text structure to understand text. This can include plot, sequencing, characters, and events in narrative text and text features such as titles, headings, pictures, captions, typology, charts, graphs, glossaries, and appendices in informational text.

CI-MS: Comprehension Instruction – Multiple Strategies
Here the teacher guides students in applying several procedures with flexibility and appropriate application to increase comprehension. For this code, comprehension instruction must include at least two or more combinations of the following four strategies: question generation, summarization, clarification, and prediction (NRP, 2000).
The Reading Experiences and Beliefs of Secondary Pre-service Teachers

Peggy Daisey, Ph.D.
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Abstract

The purpose of this study was to describe secondary pre-service teachers’ past reading experiences, present attitudes and beliefs about reading, their attitudes and beliefs about a required content area literacy course, and their predicted use of reading in future instruction. Secondary pre-service teachers (N = 124) of diverse subject areas completed four surveys during the required course. Responses of those who enjoyed reading throughout their lives were compared to responses for those who did not enjoy reading. The results of the study suggest that secondary pre-service teachers might benefit from reflecting upon their past positive reading experiences and attempt to recreate those experiences for their future students.

It is common knowledge that teachers are encouraged to be enthusiastic reading role models and provide meaningful invitations to students to read. Yet, in a study of high school students in 1977, Rieck found that only 20% of teenage students believed that their teachers liked to read and Rasinski’s (1992) study of secondary pre-service teachers cited high school teachers as the most negative influence on them as readers. Teachers pass on their attitudes about reading to their students (Schallert & Lawrence, cited in Lapp, Flood, & Farnan, 1989). In fact, Bintz (1997) quotes a middle school mathematics teacher as saying, “How do I get [my students] more involved in reading when I don’t read much myself?” (p. 17). Moreover, Graves (1990) believes that school administrators “do not assume
teachers are readers—or expect them to be” (p. 40). A few secondary pre-service teachers every semester in the content area literacy course taught by Powell-Brown (2003-2004) said that they never liked to read, and Bean (1994) reported that only 62% of his secondary pre-service teachers considered and/or could describe how they were going to foster the love of reading in their future students. Yet, Campbell and Kmiecik (2004) report that one of the top challenges of high school teachers was motivating their students to achieve literacy in their subject area.

Graves (2001) believes that teachers are the most important source for creating conditions in the classroom environment to promote student motivation to learn. Bintz (1993) predicts that teachers would gain insights into their own beliefs and intentions by reflecting upon their own reading lives. Kirby (2002) concurs and believes that “we as teachers...need to begin by discovering, or rediscovering, the passionate reader and writer within us” (p. 142). It is important that teachers talk to their students about their reading (Commeyras, Bisplingoff, & Olson, 2003). In this way, Sumara (1996) thinks it is possible for teachers to create instruction while simultaneously promoting a life that includes reading. Bintz (1997) recommends that teacher educators help future secondary teachers engage in their own reading to change the confines of school reading in their future instruction.

According to constructivist theory, knowledge is constructed from experience through reflection (Merrill, 1992). Carter (1993) argues that teaching decisions are always framed within the context of a teacher’s life history. As a result, teachers’ personal experiences with reading form an important basis for their attitudes toward infusing reading activities into their instruction (Bean, 1994; Manna & Misheff, 1987). This is because “teachers don’t just appear out of thin air. They are products—as well as active agents—of the worlds from which they came” (Greenleaf, Jimenez & Roller, 2002, p. 487). Duchein, Frazier, Konopak, & Palmer (1994) found that pre-service teachers who read for pleasure would allow recreational reading and share their enthusiasm; while those with negative experiences reported they would avoid reading including reading in the classroom, since it made them feel uncomfortable. It is important to note that secondary pre-service teachers’ attitudes toward reading are malleable (Cardarelli, 1992). For example, Roe and Vukelich (1998) found that teacher education classes and field experiences overshadowed the influence of pre-service teachers’ previous negative literacy experiences. Nourie and Lenski (1998) believe that secondary pre-service teachers need to be motivated by positive reading experiences in their content area literacy course in order to pass this attitude to their future students.
Literacy Histories

In the past, researchers have considered secondary pre-service teachers’ literacy histories for insights on which to base their literacy course pedagogy (Bean, 1994). Literacy histories are important in teacher education programs because they allow pre-service teachers to understand themselves and confront prior assumptions that will help them to be open to new ideas about literacy and the teaching of reading (Roe & Vukelich, 1998). Lortie (1975) thinks that “unless teachers-to-be are aware of their preconceptions and internalizations, the varieties of instructional methods they study may be wasted” (p. 231). The intent of literacy histories is to help future teachers change negative or limited perceptions of reading. This will allow a new space for teachers to see reading less as an add-on in an already over-packed curriculum, and more as a tool for creating personally meaningful learning for students (Bintz, 1997). When Bean and Zulich (1992) developed case studies of their secondary pre-service teachers, they found that autobiographies helped future teachers construct a more accurate view of their past and present experiences.

The promise of reading in secondary instruction will not be realized without teachers who enjoy reading and understand its potential. When teachers enjoy reading, they may be better role models and are more likely to make positive use of reading in their instruction. Given the large number of secondary pre-service teachers, it is essential for teacher educators to identify the course pedagogy that might best lead to improved attitudes toward reading. The purpose of this study was to answer the following questions:

1. What are the attitudes and beliefs about reading of secondary pre-service teachers who reported enjoying reading throughout their lives versus pre-service teachers who reported not enjoying reading?
2. What are the current attitudes and beliefs about reading of these two groups of pre-service teachers?
3. What can be done in a required secondary content area literacy course to change attitudes and beliefs?
4. How do the predictions about integrating reading into future instruction compare for these two groups of secondary pre-service teachers?
Method

Qualitative and quantitative methods were used in the design of this quasi-experimental study (Shadish, Cook, & Campbell, 2001), which took place at a Midwest university that produces a large number of educational personnel. The university is located in one of the largest book-buying areas in the country (Hull, 1995).

Participants

Secondary pre-service teachers \((N = 124)\) enrolled in a required secondary content area literacy course participated in this study. There were 57 males and 67 females, eight were African Americans and 116 were Caucasians. About a third (33.9%) of the pre-service teachers had bachelor’s degrees and about half (54.0%) were enrolled in a field experience course. Pre-service teachers had a wide variety of majors including: English (23), social studies (14), physical education (12), business (12), mathematics (10), history (7), biology (5), art (5), general science (5), emotionally-impaired (4), psychology (3), instrumental music (3), earth science (3), marketing (3), communication arts (3), physics (2), political science (2), chemistry (2), technology (2), German (1), culinary arts (1), French (1), and vocal music (1). Some pre-service teachers had previous careers in business and engineering. All pre-service teachers passed a basic skills test in reading, writing, and mathematics in order to gain acceptance into the college of education.

Data Source and Analysis

Pre-service teachers completed pre, mid, post, and follow-up (open-ended and Likert-scale) surveys (see Appendix for surveys). During the course, pre-service teachers were encouraged to expand, rethink, experience, value, and ultimately model reading. They were immersed in many reading opportunities using a wide variety of subject area reading materials such as trade books (Daisey, 1993; 1994a, 1994b), biographies (Daisey, 1996, 1996-1997, 1997; Daisey & Jose-Kampfner, 2002), and websites.

In order to compare the responses of pre-service teachers who enjoyed reading throughout their lives versus those that did not, participants were divided into two groups which were defined on the first day of class, when, using a scale from 1 to 10 (one meaning strongly disagree; ten meaning strongly agree) they were asked to respond to the statement, “Throughout my life I have enjoyed reading.” The 87 (70.97%) pre-service teachers who rated their enjoyment for reading between 6-10 (high reading enjoyment, HRE) were compared to the 36 (29.03%) pre-service
teachers who rated their enjoyment for reading between 1-5 (low reading enjoyment, LRE). Open-ended survey questions were read and reread to discover categories and themes using constant comparison analysis (Strauss & Corbin, 1990). Frequency counts were made, quantitative data was analyzed using Chi-square and ANOVA analysis (Greenwood & Nikulin, 1996; Timm, 2002), and quotes from pre-service teachers were selected to illustrate categories.

**Results of the Study**

**Past Reading Experiences**

In response to the statement, “Throughout my life I have enjoyed reading,” pre-service teachers with High Reading Enjoyment (HRE) had a much higher mean than those with Low Reading Enjoyment (LRE) (See Table 1). More females (59.09%) than males (40.91%) were in the HRE group. Teachers were cited more often as their most positive influences by pre-service teachers with HRE. One pre-service teacher with HRE recalled, “Mrs. Waltz, in first grade, gave me my own book, *Winnie the Pooh*. I still have it 30 plus years later.” A pre-service teacher with LRE fondly recalled reading in elementary school, “*Call of the Wild* was the only book I almost made it through.”

**Table 1. Past Reading Experiences**

<table>
<thead>
<tr>
<th></th>
<th>% HRE</th>
<th>% LRE</th>
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<tbody>
<tr>
<td>“Throughout my life I have enjoyed reading”</td>
<td>8.83</td>
<td>3.47</td>
</tr>
<tr>
<td>Teachers cited as most positive reading influence</td>
<td>20.46</td>
<td>8.34</td>
</tr>
<tr>
<td>Teachers cited as most negative reading influence</td>
<td>53.41</td>
<td>41.66</td>
</tr>
<tr>
<td>High school teachers cited as most negative reading influence</td>
<td>18.18</td>
<td>16.67</td>
</tr>
<tr>
<td>College professors cited as most negative reading influence</td>
<td>14.78</td>
<td>11.11</td>
</tr>
<tr>
<td>Middle school teachers cited as most negative reading influence</td>
<td>12.50</td>
<td>0</td>
</tr>
<tr>
<td>Pre-service teachers who had former teachers in their subject area who they thought enjoyed reading</td>
<td>52.27</td>
<td>38.89</td>
</tr>
<tr>
<td>Pre-service teachers who had “no idea” if former teachers in their subject area enjoyed reading</td>
<td>15.91</td>
<td>22.22</td>
</tr>
<tr>
<td>Pre-service teachers who had a teacher in their subject area who read aloud</td>
<td>5.04</td>
<td>3.86</td>
</tr>
<tr>
<td>Pre-service teachers who had a teacher in their subject area who read aloud to promote interest</td>
<td>44.32</td>
<td>27.78</td>
</tr>
<tr>
<td>Pre-service teachers who had a former teacher in their subject area who kept a classroom library</td>
<td>6.02</td>
<td>5.22</td>
</tr>
</tbody>
</table>
Half (50.00%) of pre-service teachers (N = 124) cited a teacher as their most negative influence on them as a reader; only 4.84% of pre-service teachers cited a college professor as their most positive reading influence. High school and middle school teachers as well as college professors were cited as the most negative influence on pre-service teachers with both HRE and LRE. The main reason cited for middle school teachers was uninteresting reading assignments (9.09%). One pre-service teacher with HRE wrote, “This started the trend of being assigned boring books.” Another pre-service teacher with HRE wrote about a middle school teacher who discovered him reading something other than the text in class and aggressively threw it in the trash. A pre-service teacher with LRE whose family had moved during the high school years recalled reading *The Scarlet Letter* three times in high school.

Pre-service teachers with HRE seemed to be set up in school to like reading. In comparison to those with LRE, more pre-service teachers with HRE had teachers in their subject area who they thought enjoyed reading. More pre-service teachers with LRE said that they had “no idea” if their former middle or high school teachers in their subject area liked to read. More pre-service teachers with HRE remembered middle or high school teachers in their content area who read aloud. The means were 5.04 and 3.86, respectively. This difference was statistically significant ($F = 5.95, df = 2, p < .05$). More pre-service teachers with HRE said that their former teachers read aloud to promote interest. More pre-service teachers with HRE recalled a teacher who kept a classroom library. The means were 6.02 and 5.22, respectively. This difference was statistically significant ($F = 6.12, df = 2, p < .05$).

**Implications for Teacher Education**

It is important that teacher educators be aware of the wide difference in reading enjoyment levels among pre-service teachers. Pre-service teachers could gain insights about their beliefs and teaching intentions by reflecting upon their past reading experiences by comparing the positive and negative aspects. Pre-service teachers need to realize that they often cite high school teachers, the position they are preparing to fill, as a negative influence on them as readers. In this study, it was a revelation to these pre-service teachers when they heard that high school teachers were cited as the most negative influence on them as readers. The message here for pre-service teachers is to not continue this trend. Surely, there is plenty of engaging reading to be found. Teacher educators are encouraged to consider bookstore trips (Daisey, 1995) and Amazon.com search assignments to help immerse
pre-service teachers in reading material to use with their future students and to help
them begin a classroom library. In addition, pre-service teachers need to be walked
through assignments where they practice finding a variety of reading materials for a
particular content area lesson in order to engage a broader range of students.

Pre-service teachers need to understand that if they had negative past reading
experiences, it could be helpful to discuss these experiences with their students.
By doing this, their future students who have had similar experiences will know
that they are not alone. When teachers were recalled as positive influences it was
because they offered choice, relevancy, and encouragement in reading. It is sad
that when asked about their best reading experience pre-service teachers with HRE
had “so many,” but pre-service teachers with LRE spoke about the only book that
“they almost finished.” It is essential for pre-service secondary teachers to realize
that sometimes a person becomes a reader later in life once they have found their
magic book. Pre-service teachers need to encourage their students with negative past
reading experiences to keep reading. They need to understand that there are seem-
ingly random moments when a teacher puts the perfect piece of reading material in
the hands of a student, which can be a catalyst for a life that includes reading. It is
important for pre-service teachers to know that they might be the only person in a
student’s entire life who will take the time to try to interest him or her in reading.

College professors were cited as the second most negative influence on pre-
service teachers as readers. Therefore, college professors are encouraged to let pre-
service teachers choose their reading as well as encourage them to practice reading
aloud. College professors need to have a classroom library available for pre-service
teachers in their teacher education courses.

Pre-service teachers are encouraged to set their future students up to enjoy
reading. They should understand the potential teacher read alouds to develop en-
joyment for reading by focusing attention, building community, allowing students
to escape into a story, and highlighting the author’s voice. Pre-service teachers may
benefit from the practice of selecting and reading aloud passages for future stu-
dents. They also need to understand the value of a classroom library. People collect
the things they love and find valuable. If a classroom is filled with reading material
that constantly flows, and readings are discussed with enthusiasm, engagement and
learning might be enhanced. In the university setting, pre-service teachers need to
be surrounded by reading material and be allowed to borrow them. In this way,
pre-service teachers may come to discover the pleasure of reading when presented
with interesting reading materials available to them at arm’s length. Ultimately,
pre-service teachers need to be afforded an opportunity to start or continue making a stash of reading materials that they can and will use in their future classrooms.

**Current Beliefs and Attitudes toward Reading**

Pre-service teachers with HRE had a higher mean for the extent that they thought of themselves as readers at the beginning and end of the semester than those with LRE (See Table 2). When asked for the reason for their rating, pre-service teachers with HRE cited enjoyment for reading more often than those with LRE. At the beginning of the semester, reasons cited more often by pre-service teachers with LRE, in comparison to those with HRE, were “I don’t like to read,” “I read what interests me,” “I read what’s required in school,” and “I read magazines and newspapers.”

**Table 2. Current Beliefs and Attitudes toward Reading**

<table>
<thead>
<tr>
<th></th>
<th>% HRE</th>
<th>% LRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent pre-service teachers thought of themselves as readers:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre semester</td>
<td>8.05</td>
<td>4.65</td>
</tr>
<tr>
<td>post semester</td>
<td>8.24</td>
<td>5.60</td>
</tr>
<tr>
<td>Reason for rating (pre): enjoyment for reading</td>
<td>61.36</td>
<td>2.78</td>
</tr>
<tr>
<td>“I don’t like to read”</td>
<td>0</td>
<td>27.78</td>
</tr>
<tr>
<td>“I read what interests me”</td>
<td>9.09</td>
<td>22.22</td>
</tr>
<tr>
<td>“I read what’s required in school”</td>
<td>9.09</td>
<td>22.22</td>
</tr>
<tr>
<td>“I read magazines and newspapers”</td>
<td>1.14</td>
<td>13.89</td>
</tr>
<tr>
<td>Extent preservice teachers wish to be a reader (post semester)</td>
<td>8.52</td>
<td>7.11</td>
</tr>
<tr>
<td>Motivation for reading is escape and relaxation</td>
<td>26.14</td>
<td>8.33</td>
</tr>
<tr>
<td>Motivation for reading is need or curiosity for information</td>
<td>63.63</td>
<td>72.22</td>
</tr>
<tr>
<td>Belief that if read more would be less stressed</td>
<td>20.45</td>
<td>0</td>
</tr>
<tr>
<td>Belief that if read more would be overwhelmed or out of school</td>
<td>13.64</td>
<td>5.55</td>
</tr>
<tr>
<td>Belief that if read more would be more educated and interesting</td>
<td>80.55</td>
<td>69.22</td>
</tr>
<tr>
<td>Preservice teachers read more about their subject area everyday or once per week:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on the Internet</td>
<td>64.77</td>
<td>47.22</td>
</tr>
<tr>
<td>in the newspaper</td>
<td>40.91</td>
<td>27.78</td>
</tr>
<tr>
<td>in magazines</td>
<td>23.86</td>
<td>16.67</td>
</tr>
<tr>
<td>in tradebooks</td>
<td>20.45</td>
<td>11.11</td>
</tr>
</tbody>
</table>
Table 2 cont. | % HRE | % LRE |
--- | --- | --- |
Pre-service teachers who would rather talk than read (pre) | 17.04 | 5.55 |
Pre-service teachers who would rather be active than read (pre) | 34.09 | 50.00 |
Pre-service teachers who would rather watch TV/videos than read (pre) | 9.09 | 19.44 |
Pre-service teachers who would rather read than clean (post) | 20.45 | 8.33 |
Pre-service teachers who would rather read than watch TV (post) | 15.91 | 2.78 |
Pre-service teachers who would rather read than do nothing/be bored | 5.68 | 19.44 |
Pre-service teachers who read for pleasure in the last month | 80.68 | 61.11 |
Pre-service teachers who read novels and tradebooks for pleasure in last month | 52.27 | 38.88 |
Pre-service teachers who define pleasure reading as “fun” or “interesting” | 17.04 | 8.33 |
Pre-service teachers who define pleasure reading as “not for school” or “my choice” | 32.95 | 22.22 |
Pre-service teachers who say they read any time | 22.73 | 8.33 |
Source of reading material (pre): | | |
- bookstores | 97.73 | 86.11 |
- libraries | 75.00 | 44.44 |
- borrowed from others | 40.91 | 16.67 |
- mail subscriptions | 14.77 | 25.00 |
Pre-service teachers who shared their reading with friends or relatives in the past | 98.86 | 83.33 |
Pre-service teachers who shared their pleasure reading with friends or relatives in the past | 88.64 | 55.56 |
Pre-service teachers who shared their reading in their subject area with a middle/high school student in the past (midsemester) | 47.73 | 33.33 |
Pre-service teachers who shared their reading in their subject area with a middle/high school student for pleasure in the past (midsemester) | 47.73 | 33.33 |
Pre-service teachers who were enrolled in the field experience course | 63.64 | 30.55 |
Pre-service teachers with HRE, in comparison with those with LRE, had a higher mean for the extent they wished to be a reader at the end of the semester. Pre-service teachers with HRE cited escape and relaxation as a motivation for reading, more often than those with LRE. A pre-service teacher with HRE noted that reading afforded “getting lost in another world and forgetting about everything else.” Pre-service teachers with LRE cited their motivation to read was “curiosity” and “need for information” more often than those with HRE.

Pre-service teachers with HRE said more frequently that if they read more they would be “less stressed” and “calm.” They also thought if they read more they would be “overwhelmed” because they already have so much school reading or they might be “out of school” and be free from school reading, more often than pre-service teachers with LRE. Pre-service teachers with LRE more often completed the phrase, “If I read more _____” with “I’d be more educated” and “interesting” than those with HRE. More pre-service teachers with HRE said they spent more time reading about their subject area “everyday” or “once a week” on the Internet, newspaper, magazines, and trade books.

At the beginning of the semester, pre-service teachers with HRE said that they would rather talk than read; whereas pre-service teachers with LRE said they would rather “be active” or “watch TV/videos” than read. At the end of the semester, pre-service teachers with HRE, said that they would rather read than clean or watch TV; whereas pre-service teachers with LRE, said more often that they would rather read than “do nothing” or “be bored.”

More pre-service teachers with HRE read for pleasure “in the last month.” They cited reading novels and trade books more often for pleasure than pre-service teachers with LRE. They described pleasure reading as “fun and interesting” and “not for school” or “my choice” more frequently than pre-service teachers with LRE. When asked, “What would it take to get you to read for pleasure?” more pre-service teachers with LRE, who had not read for pleasure in the past month, cited “more time” and “less assignments” (100% vs. 73.33%), respectively. A pre-service teacher with LRE wrote, “Just time-I have a stack waiting on my dresser.”

Pre-service teachers with HRE, in comparison to those with LRE, said more often that they read “anytime.” A pre-service teacher with HRE wrote, “I have several books going at once.” At the beginning of the semester, pre-service teachers with HRE more often said that their source of reading material was bookstores, libraries, and borrowing from others. More pre-service teachers with LRE reported that mail subscriptions were a source of their reading material. At the beginning
of the semester, pre-service teachers with LRE said they would buy magazines and CDs if they were given a $100 gift certificate to a bookstore. In contrast, pre-service teachers with HRE had a list of titles and authors ready.

More pre-service teachers with HRE, in comparison to those with LRE, noted that they shared reading with a friend or relative during their life. Both groups of pre-service teachers cited wonderful examples of sharing their reading material. For instance, a pre-service teacher with HRE wrote, “The best book I read last year was Feast of Love by Charles Baxter, and I gave it to my brother and suggested it to several people. I have a friend who likes me to suggest books as well.” A pre-service teacher with LRE wrote about sharing, “A book I read on P.O.W.’s in the Viet Nam War. It was so fascinating I had to tell someone about it. I actually lent it to my friend and he read it too!” At the beginning of the semester, pre-service teachers with HRE were more likely to share reading with a friend or relative for pleasure than those with LRE. At the same time, more pre-service teachers with HRE noted that they had shared reading with middle or high school students in their subject area during the past. When asked why they shared reading with a student, more pre-service teachers with HRE noted personal or pleasure reasons, as well as field experience course requirements. A pre-service teacher with LRE cited an example of sharing reading with a student: “It was about mental preparation for baseball. I thought it would help him.”

Implications for Teacher Education

Pre-service teachers with LRE read for “others” rather than for themselves. Ownership and enjoyment are keys to the extent pre-service teachers identified themselves as readers. Teacher educators need to discuss with their students the characteristics of reading for “others” (i.e., teachers or professors), in contrast to reading for one’s self, including motivation, active versus passive reading, the level of critical thought, and perseverance. It is essential to walk pre-service teachers through reading experiences that promote ownership and enjoyment by including choice, relevancy, and variety, to suggest that they are reading for themselves rather than others.

Pre-service teachers who are readers are likely to be teachers who are readers. Readers in the general public are described as a minority (Carlsen & Sherrill, 1988; McWhorter, 2003). Yet, on the first day of class many (57.26%) pre-service teachers circled 8, 9, or 10 when rating their enjoyment for reading throughout their lives. A third (33.06%) of pre-service teachers circled 10. In the general public, although
readers are said to be in the minority, “what they lack in numbers they makeup for in passion” (Hamilton, 2000, p. 5). Many pre-service teachers (75%) said that they had read for pleasure in the past month. This is similar to the 72% of teenagers in the Nation’s Report Card study (cited in Clinton, 2002), and 78% of teenagers in the Moffitt and Wartella study (1992), said they had read for pleasure in the past month. In addition, more than the 52% of college-aged Americans reported reading one book for pleasure in the past year (National Endowment for the Arts, 2004). It is essential to remind pre-service teachers of the value and pleasure of recreational reading (Carlsen & Sherrill, 1988; NCES, 1994). Pre-service teachers are encouraged to put reading material of interest by their bed and couch, as well as books-on-tape in their car or by their treadmill (Powell-Brown, 2003-2004). Teacher educators might suggest that their students buy their coffee at a bookstore and sit and read and then discuss what they discovered about the experience.

Pre-service teachers need to discuss how, when, and why to share reading with teenagers. Dauna Easley (2004), a high school vocational education teacher, describes how she sometimes runs into her former students in bookstores. They tell her that they were just ambling around, noticing the books that she had read aloud to them in class. She notes that, “Every once in a while, as a teacher, if you are really lucky you get a brief glimpse at the difference you have made in a student’s life” (p. 36). This teacher believes that reading aloud to her students for a few minutes everyday is one of the most powerful things she does as a teacher. Through reading aloud, she feels that her students come to realize that she is a reader. She shares her reading with her students, who in turn want to read more. Sumara (1996) believes that space is needed in secondary schools for the enjoyment of reading and the school curriculum to coexist.

Although there are many reasons for reading, readers may be grouped into two categories: “those who read to remember and those who read to forget” (W. L. Phelps cited in Kaplan & Rabinowitz, 2001, p. 76). Pre-service teachers with HRE read for escape and therapy (i.e., “to forget”), while pre-service teachers with LRE read for information (i.e., “to remember”). Teacher educators need to discuss the variety of reasons for reading including relaxation, escape, and inspiration. Real life examples of young people who have benefitted from bibliotherapy could also be discussed. Pre-service teachers need to reflect upon their own reading that has provided them with escape, direction, or built their self-esteem. We must challenge stereotypes about readers as inactive. There is room and need in students’ lives for both reading and physical activity (Williams, 2007).
In this study, reasons for reading (i.e., to answer questions) needed to be met immediately for pre-service teachers with LRE, while pre-service teachers with HRE enjoyed the exploration and the serendipity of finding something of interest to read (i.e., to escape). They read for pleasure despite their heavy load of school reading. Consequently, motivation needs to be central in content area literacy instruction. “Students must have both the skill and will to read” (Gambrell, 2002, p. 39). English teacher Jim Burke (1999) has this wish for his students: “If I could give you just one gift, leave just one legacy in this world, it would be to infuse in you an absolute passion for the written word....It’s a gift to yourself, and to your future” (p. 18).

Teachers are encouraged to expand the limited opportunities that currently exist in school for teenagers to nurture their reading lives (Greenleaf, Jimenez, & Roller, 2002). Atwell (1987) pointed the way by suggesting that teachers contrast their own reading against the reading that occurs in their classroom. She realized that she did not allow her students the same freedom that she allowed herself as a reader. Atwell (1987) explained that her students motivated her to fill her classroom with books. “They showed me that if I gave them the chance they would devour books....My students taught me that they loved to read. They showed me that in-school reading...could actually do something for them” (p. 20).

**Beliefs and Attitudes toward the Content Area Literacy Course**

Pre-service teachers with HRE, in comparison to those with LRE, were more likely to understand the rationale for the course at the beginning of the semester (See Table 3). The means were 8.09 versus 6.83, respectively, and this difference was statistically significant ($F = 6.98$, $df = 2$, $p < .05$). They were also more likely to see the rationale for the course at the end of the semester than pre-service teachers with LRE. A pre-service teacher with HRE wrote, “We automatically assume, I think, that secondary students should know how to read by the time they get to us. There are ‘other people’ who will take care of it. This class should teach us to become those ‘other people’.” When asked at the beginning of the semester what they thought they would learn, pre-service teachers with HRE cited promoting the enjoyment of reading more often. Pre-service teachers with HRE explained more frequently at the end of the semester (in an open-ended question) that they received many ideas for teaching. A pre-service teacher with HRE wrote, “Trade books. Bring in more outside reading and have students do something with their reading.”
Table 3. Beliefs and Attitudes toward the Content Area Literacy Course

<table>
<thead>
<tr>
<th>Beliefs and Attitudes</th>
<th>% HRE</th>
<th>% LRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service teachers understand the rationale for the course: pre semester</td>
<td>8.09</td>
<td>6.83</td>
</tr>
<tr>
<td>Post semester</td>
<td>8.79</td>
<td>7.55</td>
</tr>
<tr>
<td>Pre-service teachers predict they will learn to promote reading enjoyment in the course (pre semester)</td>
<td>28.41</td>
<td>16.67</td>
</tr>
<tr>
<td>Pre-service teachers believed that they received many ideas for teaching in the course (post semester)</td>
<td>63.64</td>
<td>41.67</td>
</tr>
<tr>
<td>Pre-service teachers believed there was an overlap in required and pleasure reading during the course</td>
<td>68.18</td>
<td>41.67</td>
</tr>
</tbody>
</table>

At the end of the semester, more pre-service teachers with HRE thought that there was an overlap in required and pleasured reading in the content area literacy course (68.18% vs. 41.67%, respectively). When asked at the beginning and again at the end of the semester, these students (N = 124) reported an increase in library use for their source of reading material (66.13% vs. 73.39%, respectively). This difference was statistically significant (F = 4.18, df = 2, p < .05).

Implications for Teacher Education

Nouriie and Lenski (1998) found that a content area reading course did little, if anything, to enhance secondary pre-service teachers’ attitudes toward reading or increase their personal reading. The results of the current study suggest that the content area literacy course reduced the resistance to the inclusion of reading in instruction, but did not eliminate the gap between pre-service teachers with HRE and those with LRE. Perhaps, pre-service teachers with LRE were less likely to understand the rationale for the course because they did not wish to integrate reading into their future teaching, since they did not enjoy it or experienced the inclusion of reading in their own past instruction.

Predictions about Integration of Reading into Future Instruction

There was a statistically significant difference between the beginning and the end of the semester in the number of pre-service teachers (N = 124) who circled “strongly agree” and “agree” for the statement, “My future students will enjoy reading in my classroom” (F = 7.72, df = 2, p < .05). Pre-service teachers (N = 124) said that they were likely to read aloud to their future students (mean = 8.14), even though many of them had not been read to by their former teachers in their subject
area (mean = 4.70). This difference was statistically significant ($F = 7.84$, $df = 2$, $p < .05$). Participants also said that they were likely to have a classroom library (mean = 8.52), although fewer of them remembered a classroom library kept by former teachers in their subject area (mean = 5.78). This difference was also statistically significant ($F = 4.80$, $df = 2$, $p < .05$).

At the beginning of the semester, pre-service teachers with HRE, in comparison to those with LRE, circled “strongly agree” more often for the statement, “It is my goal to be a positive reading role model” (See Table 4). When asked if they thought that teachers in their subject area thought it was their goal to be a positive reading role model, more pre-service teachers with HRE, in comparison to those with LRE, circled “strongly agree.” More pre-service teachers with HRE thought that school administrators expected teachers in their subject area to be readers. At the end of the semester, pre-service teachers with HRE had a higher mean for the statement, “It is my goal to be a positive reading role model.” They also had a higher mean for the statement, “My students will know I like to read.” When pre-service teachers ($N = 124$) were asked for advice for future teachers who did not like to read themselves, they suggested “start” and “be honest” (44.35%). When asked at the beginning and end of the semester if they thought it likely that they would use what they learned in the content area literacy course in their student teaching, pre-service teachers with HRE, in comparison to those with LRE, had a higher mean both pre and post semester.

Table 4. Predictions about Integration of Reading into Future Instruction

<table>
<thead>
<tr>
<th>Prediction</th>
<th>% HRE</th>
<th>% LRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It is my goal to be a positive reading role model” (strongly agree/agree)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre semester</td>
<td>59.09</td>
<td>25.00</td>
</tr>
<tr>
<td>Pre-service teachers believed that teachers in their subject area thought</td>
<td></td>
<td></td>
</tr>
<tr>
<td>it was their goal to be a positive reading role model (strongly agree)</td>
<td>31.82</td>
<td>11.11</td>
</tr>
<tr>
<td>Pre-service teachers believed school administrators expected teachers in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>their subject area to be readers (pre semester)</td>
<td>7.97</td>
<td>7.20</td>
</tr>
<tr>
<td>“It is my goal to be a positive reading role model” (post semester)</td>
<td>9.14</td>
<td>7.78</td>
</tr>
<tr>
<td>“My students will know I like to read” (post semester)</td>
<td>8.82</td>
<td>7.13</td>
</tr>
<tr>
<td>Pre-service teachers believe they will use what they learned in the</td>
<td>8.09</td>
<td>6.83</td>
</tr>
<tr>
<td>content area literacy course: pre semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post semester</td>
<td>8.83</td>
<td>7.97</td>
</tr>
</tbody>
</table>
Implications for Teacher Education

It is possible during a content area literacy course to extend pre-service teachers’ reading enthusiasm and instructional know-how, so that pre-service teachers believe that their future students will enjoy reading in their instruction. One explanation for the statistically significant difference may be that pre-service teachers said they were more likely to read aloud to their students than their former teachers read to them. In addition, they said they would have a classroom library in the future, compared to the limited classroom libraries they remembered of former teachers.

Teacher educators need to discuss how to encourage reading among middle and high school students even when other teachers in a subject area are not reading role models, and administrators are not perceived to expect it of them. They need to discuss how to find like-minded colleagues to include in their instructional initiatives and reflections (Nieto, 2003).

Conclusions

“What, then, draws one particular group of people to reading as a source of recreation and delight?” (Carlsen & Sherrill, 1988, p. xi). For 30 years, between the mid-1950s to the mid-1980s, Carlsen asked thousands of librarians, English in-service and pre-service teachers to write their reading autobiographies. Carlsen and Sherill (1998) believed that those who became readers, although they might have grown up in very different circumstances, had remarkably similar reading experiences. These researchers wondered if readers who were engineers, physicians, or lawyers, would have written different autobiographies and then decided that the stories would probably be similar. The current study, which included secondary pre-service teachers from diverse subject areas, suggested that those with High Reading Enjoyment had discovered the joys of reading. In contrast, pre-service teachers with Low Reading Enjoyment did not have this experience. Some students flourish given school reading, some survive school reading to become life-long readers, while others do not. School reading could be the anticipation of reading the next book in the Nancy Drew series. School reading could be the awaited night-time escape and reward that reading affords. As stated previously, teacher educators need to show their secondary pre-service teachers how to set their future students up to enjoy
reading. A teacher’s passion makes the difference between an ordinary teacher and a “teacher who opened up a world of the mind to some students who had no one else to make them feel that they were capable of doing great things with test tubes, trumpets, trigonometry, or T. S. Eliot” (Fried, 1995, p. 18). An e-mail from a former secondary content area literacy course student who is now teaching suggests the inclusion of reading in her teaching.

...I am currently teaching chemistry and biology at X High School.....
Teaching is going well, although the first year is most certainly a LOT of work. I am trying to put all that you taught us into practice in my classroom, and I already have a small classroom library in place. Hopefully it will grow over the years. (received December 14, 2004)

During the content area literacy course, minds were changed and epiphanies occurred about reading. Two unsolicited e-mails from pre-service teachers suggest this is true.

I just want to let you know how much I enjoyed being in your class. I had never really considered myself a reader until I had taken it. This summer I read 10 books! It may not sound like much, but for me it is amazing. (A music pre-service teacher, received September 2, 2003)

I just wanted to let you know that your [course]...changed my life. Throughout my college years I pretty much stopped reading for pleasure. I always felt like if I was reading that I should be reading one of my textbooks — the effect ended up being that I began to avoid reading at all costs. Once, long ago, I loved to read and you have rekindled that spark in me. (A biology pre-service teacher, received September 26, 2004)

Secondary pre-service teachers are encouraged to reflect upon their past positive reading experiences and attempt to recreate those experiences for their future students. Adolescents need teachers who are enthusiastic readers and know how to foster the love of reading. At the same time, teachers who have had negative reading experiences need to talk to their students about these feelings and experiences. These pre-service teachers must promise themselves not to repeat negative reading experiences in their instruction.
Appendix

Pre-Semester Survey Questions I

Numbers 1 through 6 are based on a Likert Scale from 1 – 10
(Strongly disagree = 1; Strongly agree = 10)

1. I can see the rationale for this course.
2. Throughout my life I have enjoyed reading.
3. Teachers in middle and high school classes in my content area typically read aloud to students.
4. Teachers in middle and high school classes in my content area typically have their own classroom libraries.
5. I believe that my junior and senior high school teachers liked to read.
6. I think that it is likely that I will use what I learn in this course in my student teaching.
7. I think my future students will enjoy the reading in my class.
8. Where do you like to read?
9. I would rather ________________________ than read.
10. I would rather read than ________________________.
11. If you were given a $100 gift certificate from a bookstore, what would you buy?

Mid-semester Survey Questions

1. To what extent do you think of yourself as a reader?
2. Please explain your answer to question 1.
3. It is my goal to be a positive reading role model for my future students.
   Strongly agree    Agree    Disagree    Strongly disagree
4. How much do you agree that most teachers in your subject area believe it is their job to be a positive reading role model for their students?
   Strongly agree    Agree    Disagree    Strongly disagree
5. If your answers for 3 and 4 are not the same, please explain why they are different.
6. Where do you get your books, magazines, newspapers, and other reading material?
(Check all that apply) bookstore online library other
(where?)______________

7. Are you enrolled in the field experience course? Yes/No

9. What percent of your middle and high school teachers in your subject area, based on
the evidence that you recall, would you say enjoyed reading themselves? (Please circle
one). 0% 1-20% 21-40% 61-80% 81-99% 100% I have no idea

10. On the first day of class, a question of the survey asked, on a scale from 1-10 (Strongly
disagree = 1; Strongly agree = 10), for you to rate this statement: “Teachers in middle
and high school classes in my content area typically read aloud to students.” You rated
this statement a ________

_____ Based on the reading aloud that you recalled by middle and high school teach-
ers in your subject area, why did they read aloud to the class? (Check as many
as apply)

_____ To promote interest

_____ To promote focus and attention of students

_____ Because some students in the class couldn’t read well or were unlikely to read,
if not read to, by the teacher

_____ Other reason (Please describe):

11. Have you read anything in the past month for pleasure? Yes/No
   a. If yes, why would you classify it as pleasure reading?
   b. If no, what would it take to get you to read for pleasure?

12. Who (what) was the most positive influence on you as a reader? (Please just circle one).
   Mother Father Grandfather Grandmother Sister Brother Other
   Elementary teacher Middle school teacher High school teacher College Prof

12a. Why do you say that?

13. Who (what) was the most negative influence on you as a reader? (Please just circle one).
   Mother Father Grandfather Grandmother Sister Brother Other
   Elementary teacher Middle school teacher High school teacher College Prof

13a. Why do you say that?
14. Have you ever shared something that you read with a friend or family member? Yes/No
   If yes, tell me about one example of what it was that you shared and why you shared it.
15. Have you ever shared something that you read with a middle/high school student? If yes, tell me about one example of what it was that you shared and why you shared it.
16. On a scale from 1-10 (1 = strongly disagree; 10 = strongly agree), respond to this statement: “School administrators expect teachers in my subject area to be readers.”
17. Please fill in the blanks for this statement with what comes to your mind:
   If I read more, I think I would be ______________________________.
18. How often do you read the following for pleasure in your subject area (on the average during the school year and vacations)? Please circle one for each.
   A. Tradebooks: Everyday, more than once a week, once a week, twice a month, once a month, a few times a year, once a year, less than once a year.
   B. Magazines: Everyday, more than once a week, once a week, twice a month, once a month, a few times a year, once a year, less than once a year.
   C. Newspapers: Everyday, more than once a week, once a week, twice a month, once a month, a few times a year, once a year, less than once a year.
   D. Internet: Everyday, more than once a week, once a week, twice a month, once a month, a few times a year, once a year, less than once a year.

Post Semester Survey (Based on the same Likert Scale as Pre-Semester Survey)
1. I can understand the rationale for this course.
1a. Please explain your answer to 1.
2. I plan to read aloud to my students.
3. I plan to have a classroom library.
4. I plan to use what I learned in [the content area literacy course] in my student teaching.
5. I think my future students will enjoy the reading in my class.
6. Was there an overlap in personal and required reading in [the content area reading course]? Yes/No If yes, what percent overlapped? _____%
7. I would rather _________________ than read.
8. I would rather read than ________________________________.
Follow-up Survey (Based on the same Likert Scale as Pre-Semester Survey)

1. To what extent do you think of yourself as a reader?
2. It is my wish to be a reader.
3. My future students will know that I like to read.
4. It is my goal to be a positive reading role model for my future students.
5. What advice do you have for future teachers, who do not like to read themselves?

References


About the Author:
Peggy Daisey is a professor in the Department of Teacher Education at Eastern Michigan University where she teaches secondary content area literacy courses. Her research interests are in secondary content area reading and writing, as well as motivation.
Many of today’s teachers want to create lifelong readers, and, in particular, they often worry about finding books that will engage their boy readers. Sadly, many boys regard the act of reading as a feminine activity (Tenenbaum & Leaper, 2002). Since boys often value reading less than their female counterparts (Baker & Wigfield, 1999; Gambell & Hunter, 2000), teachers must make Herculean efforts to engage them and guide them in choosing books that will appeal to their interests. William Brozo made an especially compelling case for the need to entice boys into reading and then keep them engaged. He writes, “...capturing boys’ imaginations through literature is a critical element of improving boys’ psychological, sociological, and academic health. Reading books that appeal to and affirm young men’s masculine identities in positive ways may transform a boy’s sense of self and expand his academic possibilities” (2002, p. 21-22).

Boy readers often relish nonfiction, adventure stories, books with male protagonists, stories that feature animals and sports, and series books (Smith & Wilhelm, 2002). Bookstores and libraries should take care to purchase these types of books that are particularly appealing to boys. In this book column we have examined several possible titles that are sure to lure boy readers into reading. For our next column, we will feature books with female protagonists and books sure to interest many female readers.

Grades K-2


This stunning picture book biography of the newly elected 44th U. S. president combines rich lyrical prose with breathtaking watercolor illustrations. The young Obama learned that he was happier when he met life’s challenges with hard work and perseverance. Weaving the theme of hope into the Obama story, Grimes leaves readers with the notion that each of us can have hope and make a difference in some small—or large—way.

Born into a long line of bullfighters, the Little Matador reluctantly but dutifully hones his skills as a matador so he can follow his father in the family business. While what he really enjoys doing most is painting, his parents insist that he prepare for his career in bullfighting. When forced to fight a bull in the town arena, he sketches the charging bull, who stops in his tracks to admire his likeness—much to the delight of the onlookers. Afterward, everyone wants the Little Matador to paint their portraits—even his parents.


In engaging rhyme, the author describes the high seas adventures of young Gulliver Snip in and around his bathtub. When his ship sinks, Gulliver manages to jump overboard and head to the safety of his mother’s favorite living room lamp, to which he clings until the long-suffering but patient woman saves him and tucks him into bed. As he falls to sleep, Gulliver dreams of the next day’s adventures when he will once again be the captain of his very own clipper ship. Young readers will clamor to hear this delightful picture book read again and again, and the cheerful acrylic and pastel illustrations are certain to leave a smile on the lips of adult readers as well.


Jack is the youngest and the quietest member of a raucous family, and when he tries to tell his mother, his father, his grandparents, and his siblings that he plans to climb up the mountain, no one hears him. With his trusted stuffed bear, Chester, for company, Jack claims his voice through several confidence-raising experiences with the creatures who make the mountains their home—even reuniting a wolf cub
with its mother and managing to frighten away a bear. When his worried family finally finds Jack, the now-confident young boy commands attention and makes them listen to every word describing his day. The book’s soft illustrations make the natural world a friendly place to visit and home a safe place to return to after a day’s adventures.


Although he wants to be in his family’s mariachi band, Gustavo is unable to play any of the instruments needed. Lonely and longing for a way to contribute, he takes to wandering outside his home where early one morning he is inspired to sing as he feasts his eyes on the lovely desert habitat. As his voice fills the air, neighbors and family members realize that Gustavo’s voice is the instrument that he can contribute to the family’s musical enterprises. Young readers will be warmed by the bright colors associated with the desert in the inviting illustrations and will be likely to identify with Gustavo’s wish to contribute to the family’s enterprise with his own unique gift.

Grades 3-5


James receives a pen-and-ink-set as a birthday present from his artist father. Later, James’s friend, Marvin, a beetle, climbs up on James’s desk and discovers the opened ink and paper. Marvin dips his legs into the ink and paints a lovely painting as a gift for James. Everyone is impressed with the fine detail of the painting, but James cannot reveal the identity of the true artist. Later, the two friends are able to solve an art heist at the Metropolitan Museum of Art, and to recover one of Albrecht Dürer’s famous drawings that greatly resembles Marvin’s pen-and-ink gift to James. This intriguing mystery helps both Marvin and James realize that, “A good friend is someone you can count on. No matter what.”

After his dad leaves, Mitch and his mother spend the summer at Bird Lake with his mother’s parents. Mitch’s dream that he and his mother will move into the house next door is shattered when Spencer and his family move in for the summer. Spencer wonders if their house is haunted. Is it possible that his dead brother is trying to communicate with them? Mitch knows the answer to this haunting mystery.


Wife and husband team, Kathleen Krull and Paul Brewer, will have kids rolling on the floor with this new title, a biography of a unique French performance artist, Joseph Pujol. Pujol himself often caused audiences to literally faint with laughter at Paris’s Moulin Rouge in the late 1800s with his special talent. Pujol trained his abdominal muscles in order to perfect “the art of the fart” by mimicking sound effects, tunes, and stories. Boris Kulikov’s illustrations are the perfect complement for this hilarious text written in verse.


Based on a true story, the author describes the best night in 11-year-old Mackenzie’s life as the evening that Cash comes into his life. When his abusive father tosses the pit bull puppy into his bed, it is love at first sight for both boy and dog. Cash and Mackenzie spend every waking and sleeping moment together, and Cash quickly learns to stay out of Mackenzie’s father’s path. The inevitable encounter occurs, though, and Cash finds herself dumped in the middle of nowhere, left to fend for herself. Loyal Mackenzie never forgets her and keeps searching for his beloved dog for months. Young readers will rave about this inspiring story of a heroic canine and the small acts of heroism she inspires as the most unlikely folks band together to bring Cash home.

Pedro Morales loves playing basketball. He especially loves playing with Ned Hancock, the best player on his team and the most popular guy in school. Practicing with Ned makes Pedro a better player and instills a desire within him to be even better. Things seem to change, however, when Pedro runs for school president against Ned. Would Ned purposely do things to make Pedro lose his confidence and appear to be a poor player? The boys’ friendship is tested by this competition.


In the bottom of the last inning of the second-to-last game of the season, Willie’s team, which is in first place in the league, finds itself trailing the other team, 3-2. With players on second and third and two outs, Willie comes to the plate. He will either hit the runners in or lose the game. Willie knows that if he blows the game, the other players will be mad at him and call him names. Little does he know that, at the crucial moment, he will make a new best friend who can grant his wishes. Nor does he know his new friend will be a large blue chimp wearing orange and white surfer shorts.

**Grades 6-8**


Thirteen-year-old Tommy Duncan doesn’t care a bit about the war raging in Europe. Instead, he spends his time playing baseball and following the Brooklyn Dodgers on his radio. Tommy is preoccupied by matters closer to home, such as his mother’s failing health and his growing feelings for a classmate. But as his friend Beth daily reads newspapers for news about a war being fought thousands of miles away, and as he listens to the stories of Sarah, a Jewish classmate, the war becomes more personal. Tommy’s struggles mirror the nation’s during this period before the United States lent its military forces to the conflict that became World War II. Readers will find
Tommy’s innocence about world politics, his mother’s fragile health, and his emerging interest in Beth quite appealing and true to life.


In this third art mystery featuring the three friends from Chicago, Calder and his father travel to Great Britain on business, and Calder accidentally gets involved in a community’s dispute over the quality of the artwork in the town square. When Calder disappears, his father appeals to his schoolmates Petra and Tommy, who fly overseas to look for clues. The three friends must rely on their own unique talents as well as recollecting what they know about one another in order for there to be a happy ending. As in the previous two books, art is at the heart of the plot—in this case, the mobiles of Alexander Calder, and as usual, Calder’s ever-present pentominoes play an important role. The book will keep readers turning their pages as quickly as possible in order to learn Calder’s fate.


When nine-year-old Ethan’s father hires him out to the Lyman family to pay the father’s debts, Ethan enters an uncomfortable new world where his new master can thrash him for any perceived mistakes, and where fellow indentured servant Daniel feels safe only when he rides his beloved horse Ivy. Readers will root for the boys to escape the fates Mr. Lyman has planned for them, and they will surely shudder in horror at the mistreatment inflicted by the boys’ master. Particularly poignant is Daniel’s loss of his own language, identity, and name, since all Irish boys are known as Paddy to the townspeople. Daniel turns out to be less than difficult, after all, and secrets about Mr. Lyman are revealed.


Using the panels familiar to fans of graphic novels, the author/illustrator describes the events that precede Abraham Lincoln’s Gettysburg Address, including the horrific battles and lives lost. Interestingly, he also shows some of the town’s citizens, watching in fear as the troops from both sides of the conflict ride through the town. The stark illustrations of the corpses of men and beasts
and the sheer numbers of soldiers who lost their lives during these pivotal moments of the Civil War are sure to engage readers, reminding them of the cost of military conflicts. Butzer’s use of primary sources such as letters, diaries, and speeches lends credibility to his efforts and makes readers feel as though they too are on the battlefields. This historical graphic novel is further strengthened by the author’s notes at the end of book that provide explanations for the panels and offer additional detail for curious readers.


This witty noir mystery will keep readers laughing as they encounter Vinny Biggs, a mini-mobster in charge on the underworld of Franklin Middle School. Biggs deals in everything from stolen candy to forged hall passes. His hit men turn uncooperative classmates into outcasts by “outriting” or shooting them with water guns so it appears that they have wet their pants. Biggs seeks out seventh-grader Matt Stevens to solve a case for him, which Stevens always refuses until Biggs makes an offer he cannot resist.


Brady Steele’s life both changes and is spared when he climbs onto his roof to view a meteor shower. Much to his surprise a meteor slams through the roof of his room and right through the mattress on his bed. As Brady and his cousin Quinn spend a week cycling, playing basketball, caving, and fishing, Brady notices surprising surges in his skills, strength, and energy level. Later, he experiences startling side effects of these new found skills. Could these changes be related to the meteor?

In the fourth book in the Percy Jackson and the Olympians series, both Percy and his mother worry about what will happen when he begins classes at his new school. They have good reason since Percy has a “history” with schools, and his mother’s boyfriend used his influence as an English teacher to get him into this particular school. As in the previous books, Percy and his friends are thrust on a dangerous quest that leads them to many of the famous Greek gods, and this time into the fabled labyrinth. Their actions take them to Alcatraz and even cause Mount St. Helens to erupt before they achieve their noble goal.

**Grades 9-12**


When he is 15, Abenaki Louis Nolette finds himself recruited to fight in the Union forces during the Civil War. Drawn by the wages that will improve the lot of Louis and his mother, and the Union’s desire to stamp out slavery, he quickly begins to reconsider his decision to enlist. As battles continue to draw huge tolls and he watches men die right before his eyes, Louis finds leadership and humanity in the most unlikely places.


In true Walter Mitty fashion, sophomore Joey Eastland sees himself as a great football receiver in his imagination. In reality he is what his coach calls a “hydration therapist,” providing water on the sidelines for the high school gridiron stars. But in Joey’s case, his failure to perform during tryouts is caused by nerves, and the coach gives him a second chance when he happens to see Joey intercept a ball flung at a classmate. Almost overnight, Joey’s dreams of football glory come true and take him dangerously close to betraying himself and his friends in his search to join the high school’s golden gridiron boys. Just how much of himself will Joey change in order to be accepted into the inner circle?

High school senior Sam Carrier doesn’t find it easy to live peacefully in a world intolerant of Tourette’s Syndrome. At the most unfortunate moments—say, when he’s trying to talk to a girl he has his eyes on—his body betrays him by jerking and going into spasms. When his cruel stepfather kicks him out of the house after graduation and then a newfound friend dies, Sam sets off on a road trip with his crush, Naomi, who has a few secrets of her own. On the way to meet his grandmother, who lives in Jerk, California, Sam discovers several secrets about his father and the windmills he crafted, and he begins to come to terms with his condition.


Only a handful of countries still use the death penalty for offenders younger than 18, and the United States is one of them. Inmates who have been sentenced to death for crimes they committed as teenagers speak in this thoroughly engaging page-turner. The author explores capital punishment, the prison system, and justice through her insightful interviews with inmates, attorneys, and the families of victims. The stories of Death Row inmates Mark, Nanon, and Roy are, by turns, haunting and chilling, and readers will ponder the value of a human life and the consequences of one violent act. Kuklin raises questions about the fairness of our justice system that are hard to answer.


Thirteen-year-old C. J. loves his dad a lot, but he still finds it hard to understand why his dad left the family for a brief time. Although he’s back, C. J. doesn’t trust his dad or trust that he won’t leave again, and he finds it hard to shed the responsibilities he was forced to assume during his father’s absence. The story of a family trying to heal the broken ties that once bound and are now severed as one
member leaves is told through a series of powerful, gut-wrenching poems complemented by the always evocative illustrations of Lewis. In simple sketches, Lewis puts all the hopes and fears of a marriage on the face of C. J.’s mother and the reluctant acceptance of his father into the family fold on C. J.’s own visage.

References


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Terrell A. Young and Barbara A. Ward are on the faculty at Washington State University.
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.

Submitting Manuscripts

Manuscripts should be submitted electronically to the editor, Allison L. Baer, at spls-horizons@wmich.edu. Please send one copy with full author(s) information, one clean copy with no identifying information, and an abstract. All image files and charts used must be submitted as separate hi-resolution (300dpi) files. Acceptable formats are jpg, tif, or Microsoft Excel format if a chart. Embedded images or charts 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 receipt. 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. For more information about Reading Horizons including samples of past articles, visit our website at http://www.wmich.edu/coe/spls/clinic/readhorizons.htm. The editor can also be contacted at allison.baer@wmich.edu.

Editorial Policies

After in-house review by the editor, and if accepted for review, manuscripts will be sent to two members of our Editorial Advisory Board for blind review. Author(s) will be informed of our decision within two to three months of submission. Criteria used for evaluating and reviewing manuscripts are significance of the
contribution to literacy/language arts research and instruction, clarity of writing, and sound methodology process used.

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Upon acceptance, a checklist will be provided to you that will guide you through all the requirements necessary when submitting your final draft for publication. You will be required to complete this checklist to ensure that all materials and procedures are followed and no critical information is missing from your final document.

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Author(s) will receive two copies of the journal in which their article appears.

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