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. 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)

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

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*

| Participants	M (WPM)	SD
Adults		
Ann	152.6	12.0
Elsa	141.9	17.1
Sara	204.1	10.6
Students		
Alena	125.2	27.4
Angelica	84.1	18.6
Jason	82.9	22.5
Jon	77.1	11.2
Rebecca	108.1	23.3

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.
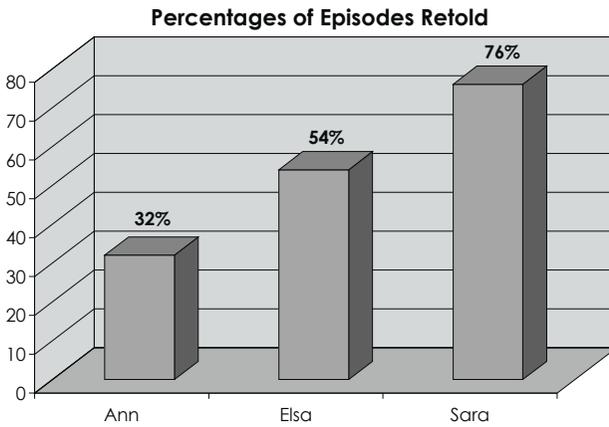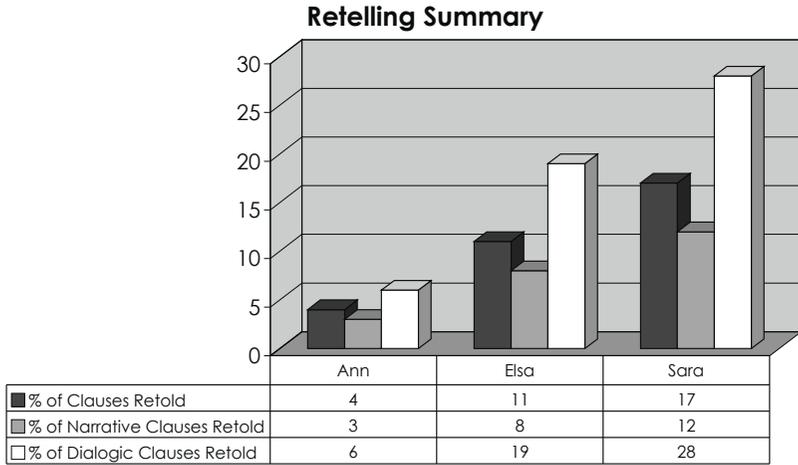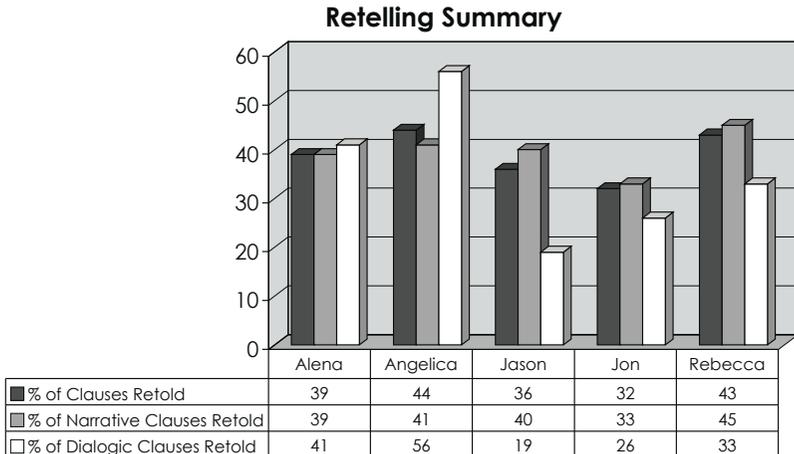
Figure 2. Episodes Retold by Adult Readers
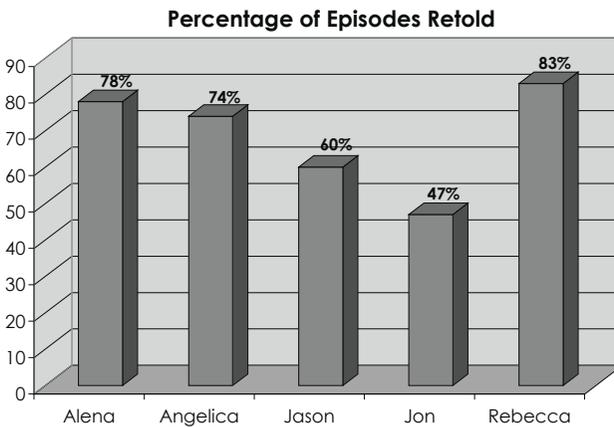
Figure 3. Episodes Retold by Student Readers

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.

Retelling Summary

	Ann	Elsa	Sara
■ % of Clauses Retold	4	11	17
▨ % of Narrative Clauses Retold	3	8	12
□ % of Dialogic Clauses Retold	6	19	28

Figure 4. Adult Retelling Summary of Narrative and Dialogic Clauses

Retelling Summary

	Alena	Angelica	Jason	Jon	Rebecca
■ % of Clauses Retold	39	44	36	32	43
▨ % of Narrative Clauses Retold	39	41	40	33	45
□ % of Dialogic Clauses Retold	41	56	19	26	33

Figure 5. Student Retelling Summary of Narrative and Dialogic Clauses

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.

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