STRUGGLING MIDDLE SCHOOL READERS LEARNING TO MAKE

INTERTEXTUAL CONNECTIONS WITH TEXTS

Sunni Johnson, B.S., M.A.

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APPROVED:

Leslie Patterson, Major Professor
Daniella Smith, Minor Professor
Loretta K. Albright, Committee Member
Janelle B. Mathis, Committee Member
Carol D. Wickstrom, Committee Member
Nancy Nelson, Chair of the Department
    of Teacher Education and
    Administration
Jerry Thomas, Dean of the College of
    Education
James D. Meernik, Acting Dean of the
    Toulouse Graduate School

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When people read, they often make connections to their lives, the world, and other texts. Often, these connections are not overt, but are a thinking process invisible to observers. The purpose of this study was to explore the intertextual connections struggling middle school students made as they read multiple topically-related texts to build knowledge, through observation of discussions, surveys, and interviews with students. The students received 30 lessons based on the constructivist model of comprehension. Data sources included observations during the delivery of these interactive lessons and surveys regarding their connections, their use of the connection strategies in content area classes, and their knowledge of the topic. The observations and surveys were analyzed using the constant comparative method. Information rich cases were developed from these data, as well as from interviews with selected students.

Although the students were considered struggling readers, they did not respond to the instruction as stereotypical struggling readers. They were engaged, and they led discussions and shared connections with the class. The students demonstrated they learned to make connections and more text-to-text or intertextual connections overall. The students made connections when interested in the topic and had opportunities to discuss the texts. Finally, the students sometimes made connections in content area classes with opportunity in those classes. The study has implications for theory, future research, and practice of teachers and library media specialists.

TABLE OF CONTENTS

Summary

Discussion of the Findings

Finding 1: Individualistic and Non-Stereotypical Responses

Finding 2: Students Variety of Connections, Talk About Their Connections,

and Confidence About Making Connections

Finding 3: Interest and Discussion

Finding 4: Connections in Content Area Classes Other than English

Language Arts

Implications for Theory

Implications for Research

Implications for Practice

Conclusion

Appendices

LIST OF TABLES

LIST OF FIGURES

Page

CHAPTER 1

INTRODUCTION

I didn't realize it, but yeah, I guess I am making intertextual

connections when I read.

~ Student Participant

Statement of the Problem

In the U.S. education system today, it is accepted that students learn to read by

the end of grammar school and have no need for further help unless they are identified

in testing as struggling readers. Those students are then given more instruction and

usually do not improve markedly over the next few years unless something happens to

change their views on reading. In most cases, the reading teachers in middle schools

are not adept at innovative methods in changing the way students read, and they do not

have the tools to help the struggling readers. This research was aimed at finding a new

way to help those students see reading in a different light and even help them enjoy the

entire reading experience for the remainder of their school careers and lifetimes.

When proficient readers read, they make connections (Snow, 2002) drawing

previous experiences when interpreting written texts (Torr, 2007). Through making

connections, teachers help students broaden understanding, intensify focus, and

increase readers' enjoyment as they begin their lifetime journey in reading and learning.

Comprehension in reading consists of both understanding and retention of the content

and making intertextual connections assists in both processes. The reader connects to

other reading experiences and memories of information related to the current text as

well as to personal and world experiences. All of these things have led me to my study

1

of connections in reading and how it can be taught to struggling middle school readers. This claim resonates with my own experience as a reader and as a literacy researcher.

In 1982, I entered second grade as a student who just did not enjoy reading. After taking my first standardized test, I was moved to the lowest level reading group because my scores showed I was a struggling reader. I spent the next 4 years in reading improvement classes designed to teach me to learn to read better. My evenings were spent reading aloud to my parents who were concerned with my reading deficit. Upon my reading passages, they would stop and ask me recall questions from the text. My struggles with reading were remedied by working on my fluency (reading aloud), answering questions by putting my finger on the answer in the text (recall questions), and finding texts that interested me. (I preferred the *Sweet Valley High* books.) However, when I entered seventh grade and was enrolled in another reading improvement course, my teacher started asking me to think about how my life and experiences with other texts related to the texts I was reading. Once I started looking at texts through that lens, reading became more enjoyable, and I improved drastically. By the end of the seventh grade, I was out of reading improvement classes forever. I could say that my reading improved because I thought about texts in a different way, found more interest in what I was reading, or even that I read more because I enjoyed it. However, I believe my story was one of a struggling reader who was beginning to make connections among texts. The teacher did not teach me to make connections but definitely asked me to make them, which was not something I can recall being asked to do before that time. Eventually, when I became a reading teacher, I watched my students struggle with making connections among the texts. Since reading involves

making connections with texts, self, and world, my experiences with reading and teaching reading prompted my study of connections with struggling readers.

Hartman (1991) as one of many literacy researchers argued that readers construct meaning not by using a single text but from experience with multiple texts. Essentially, readers "transpose texts into other texts, absorb one text into another, and build a mosaic of intersecting texts" (p. 171) in order to construct meaning. Many researchers identified that until the mid-1980s comprehension was researched using a single text (Hartman, 1991, 1992, 1995; Many, 1991; Tierney, 1992; Tierney & Pearson, 1994). However, when students are given the opportunity to read and are encouraged to make connections to various types of texts, reading becomes more meaningful and relevant (e.g., Alvermann, Moon, & Hagood, 1999; Bean, Bean, & Bean, 1999; Keene & Zimmermann, 1997; Short, 1992a; Swafford & Kallus, 2002). In fact, researchers (e.g., Hartman, 1991, 1992, 1995; Many, Fyfe, Lewis, & Mitchell, 1996; Spivey, 1984; Spivey & King, 1989) began to recognize the important role of making intertextual connections in reading (Snow, 2002) to be an essential aspect of comprehension. Readers draw on various experiences (Torr, 2007) to make connections that are located in the text, between texts, and outside the texts (Hartman, 1995), and they make intertextual connections when they have the opportunities to discuss (e.g., Short, 1991) and in their writing (e.g., Spivey, 1984). In other words, when readers encounter texts, they use understanding from previous texts, personal experiences and world experiences to make meaning of the current text. For this reason, this study responded to the rationale that reading comprehension research should be framed as the investigation of meaning-making across multiple texts.

Rationale for the Study

The need for this study was grounded in five assertions about the gaps in the research on reading comprehension and the appropriateness of the instructional course that provided the context for this investigation:

1. There is little research about instructional practice related to making intertextual connections.

2. Evidence is scarce about whether and how students make intertextual connections as they make meaning in their science, math, and social studies classes.

3. Research linking "intertextual connections" as a comprehension strategy with instructional practices for struggling readers is limited.

4. Kintsch's model of comprehension (as the basis of the course serving as the context for this investigation) is more specific than other models and offers potential for readers to use intertextual connections for comprehension and knowledge building.

5. The instruction in this course gives a context to study the connections students are making because they are reading multiple texts grounded in content knowledge (e.g., adaptation of dogs). Also, each lesson of the course provides the opportunity for student discussion, which provides opportunities to observe the connections students are saying they are making.

Research has shown that by making connections among what they are reading or experiencing, students are more likely to understand the text and find it relevant and meaningful (Short, 1992, Swafford & Kallus, 2002). First, researchers like Lehr (1991) and Many (1991) have established that readers make intertextual connections to

previously read text while reading new texts and that readers' construction of meaning is enhanced by making intertextual connections (Hartman, 1992). However, there is little research about instructional practice and strategies related to intertextual connections (Lenski, 2001). With state assessments (e.g., Texas, Massachusetts, and New York), national assessments (e.g., National Assessment of Educational Progress), and international assessments (e.g., Progress in International Reading Literacy Study) recently including text sets and triplets that contain related texts and questions asking readers to make intertextual connections between them, there is a need to gain a better understanding of intertextual connections students make and the instructional strategies that can help students learn how to make connections.

Studies have been used to identify intertextual links students make while reading multiple texts (Hartman, 1992, 1995; Short 1992), and one has been used to explore how to teach readers to make intertextual connections (Lenski, 2001). For example, even though Hartman (1991) observed high school students making intertextual connections across multiple texts, Hartman was studying the readers' processes, not the instructional approach. Lenski's study (2001) was focused on helping teachers change their instruction and questioning strategies. While other researchers (Beach et al., 1990; Cairney, 1992; Short, 1991) might not have purposefully focused on instruction, the implications from their studies identified instructional practices that led to students making intertextual connections. For instance, Beach et al. (1990) identified that students need to be encouraged to "read beyond the scope of their own units and draw on their own unique prior knowledge" (p. 711). Cairney (1992) identified that teacher read-alouds influence students' writing and interaction in class, and Short

(1991) found that teachers need to provide time for students to discuss their connections. Although literacy researchers have determined that readers use many texts to construct meaning of a target text (Hartman, 1991, 1992, 1995; Many, 1991; Tierney, 1992; Tierney & Pearson, 1994), the literature on classroom practice and intertextual connections lacks attention to relevant instructional practice (Hartman, 1995; Schmidt et al., 1985).

Second, in addition to the change from assessments that use only single passages and questions to the use of multiple passages and questions that require readers to make intertextual connections that stretch across multiple texts, nonfiction passages, much like students would read in their history, science, and math classes, have been increasingly used. Since many standardized assessments contain over 50% nonfiction texts, there is a need to gain a better understanding of if or how readers use intertextual connections in the content area classes in which they likely read nonfiction texts. Evidence about whether and how students make intertextual connections as they make meaning in their science, math, and social studies classes is scarce.

Third, Hartman (1992) provided valuable research regarding intertextual links proficient readers make when reading. Proficient readers have been found to make intertextual connections more often when they read (1992), but struggling readers need to practice making intertextual connections when they read as well. Cairney (1990) found that all readers make intertextual connections when they read but that low achieving students make more links related to content, compared to high achieving students who make more sophisticated intertextual links, such as links to genre. Based

on this information, more research is needed on intertextual links and the instruction of struggling readers.

Purpose of the Study and Research Questions

More specifically, the purpose of this study was to explore the intertextual connections students make as they are reading multiple topically-related texts to build knowledge. This study took place in two classrooms where a set of topically-related texts were read and discussed to verbalize the connections students made while reading. Exploration of intertextual connections in the construction of meaning was accomplished through observation of the discussions, surveys, and interviews with students. This study was designed to answer these four research questions regarding eight middle school students who were struggling in their reading:

1. How do the students generally function in the context of comprehension instruction based on the construction-integration model of comprehension?

2. Are they learning to make intertextual connections in the context of this instructional approach and if yes, how so?

3. What conditions contribute to their making intertextual connections?

4. What do they say about whether or how they are making intertextual connections in content area classes other than English language arts?

The overarching purpose of this study was to address gaps in the literature related to making intertextual connections, comprehension instruction, and knowledge building. The following factors contributed to the significance of this study:

- The knowledge gained regarding how struggling readers make intertextual connections.

- The knowledge gained in if or how struggling readers make intertextual connections in their content area classes.

- The knowledge gained in how intertextual connections are made while reading nonfiction and fictional texts.

- The acknowledged lack of research on instructional practices and strategies involving making connections and knowledge building.

Definition of Terms

The following are definitions of terms that were used in the study:

Comprehension. Comprehension, in general, refers to the construction of meaning for written or spoken communications through the transaction of ideas between readers and text. This meaning-making is influenced by background knowledge (Harris & Hodges, 1995). This is a general definition of comprehension that fits several theoretical models. Kintsch (2004) defined comprehension as "automatic meaning construction via constraint satisfactions, without purposeful, conscious effort. Normal reading involves automatic comprehension as well as conscious problem solving whenever the pieces of the puzzle don't fit together as they should" (p. 1271).

Discussion. This term refers to an exchange of ideas through conversation. Discussion is important to reading comprehension, because it provides the students with opportunities to explore their understanding of texts as well as to learn how their peers construct meaning. When a group is engaged in discussion, a social space is created for them (Dyson, 2002). Since all students have many different experiences, they learn from others and deepen their own meanings from hearing about others' experiences.

Instructional strategy. This is the teaching method(s) utilized by the teacher (e.g., think-aloud, discussion, writing.)

Intertextuality. This term means the interrelationship among texts. When readers encounter a text, they use previous texts to enhance meaning of the current text.

Intertextual connection. This term means a connection that is made between texts.

Meaning-making strategy. This means the strategies used by the students to assist them in making meaning out of text (e.g., summarizing, inferencing, determining importance).

Personal connection. This term means a connection that is made between texts and personal experiences.

Struggling reader. For the purposes of this study, a struggling reader is identified as one who failed to pass or barely passed the previous year's standardized reading test. These students are typically placed in a reading course for additional help in order to pass the minimum requirements of the standardized reading test.

Topically-related texts. These texts share a common topic or theme. These texts can be any combination of nonfiction, fiction, and functional literature (e.g., video, photography, music).

World connection. This term means a connection that is made between texts and a world experience.

Limitations on the Generalization of the Findings of the Study

The following were identified as possible limitations of this study:

9

1. The findings of a case study like this one cannot be generalized beyond the participants in this study.

2. Interviews with students can often contain information they think the researcher wants to hear.

3. The data about students' meaning-making gained while observing discussion was limited to what the students reported verbally (think aloud) and how they engaged and participated in the conversation. If the students did not participate verbally in the discussions, their connections were not recorded. There were no specific intentions to generalize findings to a larger population in this descriptive qualitative research; therefore, generalizations were not made, but a deep understanding was attained on the information researched.

The strengths of this research design addressed these potential limitations because of the "thick description" (Geertz, 1973) or a description that "opens up a world to the reader through rich, detailed, and concrete descriptions of people and places" (Patton, 2002, p. 438), of the individuals, and their responses. This study was further enhanced by the close working relationship between the classroom teacher and the researcher. Great care was taken to establish consistent teaching techniques and detailed documentation of students' responses.

Assumption of the Study

The following was an identified assumption of this study: Students would generally provide honest responses to questions about their reading during the survey and interviews.

Summary

The purpose of this study was to explore the intertextual connections struggling middle school students made as they are reading multiple topically-related texts to build knowledge. Lack of research in the areas of this study indicated a need for this research. This study's findings were limited and likely not generalizable because of the small study population of participants and the data gained through observation of discussions were restricted to what the students verbalized. In addition, surveys and interviews might have contained information the participants believed the researcher wanted to hear. It is assumed that all participants would generally provide honest responses. The goal of this study was to contribute to teachers' understanding about how struggling middle school students learned to make intertextual connections across texts and whether that understanding might contribute to students' academic success in all classes.

CHAPTER 2

CONSTRUCTIVISM, COMPREHENSION, INTERTEXTUALITY EXPLORED

Introduction

This chapter contains a survey and synthesis of the research and theory related to the key concepts upon which this study focused. Specifically, this chapter explores (a) the constructivism theoretical perspective, (b) comprehension, knowledge-building, and connections, (c) theory and instruction on the construction-integration model of comprehension, (d) theoretical explorations of intertextuality, and (e) classroom studies of intertextual connections.

Theoretical Perspective: Constructivism

This study took a constructivist stance toward learning in general. Constructivists believe knowledge and meaning is created by humans based on their ideas and experiences versus other orientations that view meaning as exclusively in text. People like authors and audiences, writers and readers, speakers and listeners, construct meaning instead of just receiving it from the text. It differs from the behaviorists' views which include a skills-based bottom up approach to learning in general and to literacy learning in particular. According to Spivey (1997), "what distinguishes constructivists from people with other orientations is an emphasis on the generative, organizational, selective nature of human perception, understanding, and memory—the theoretical "building" metaphor guiding thought and inquires" (p. 3).

Constructivism is a learning theory grounded in the ideas of Piaget, Vygotsky, Bruner, and Bartlett. For example, Piaget (1936) suggested that humans construct knowledge from their experiences. His explanation of how a learner moves through

stages of cognitive development through accommodation and assimilation has

contributed significantly to the work of educational researchers and practitioners. He

also identified schema as a system of knowledge that each individual constructs

through experience.

Vygotsky (1978) suggested that learning is an active construction of knowledge

and emphasized the social process where knowledge is constructed in interactions in a

social group. One of his major contributions is his concept of the zone of proximal

development (ZPD). The ZPD represents the difference between a student's ability to

perform a task under guidance and/or with peer collaboration and the student's ability

solving a problem independently. The culture provides the students with cognitive tools

(cultural history, language, and social context). In the ZPD, students, with the help of

adults or other peers, master concepts they could not master on their own.

Bartlett's (1916; 1932) work investigated the ways meaning making occurred as

an individual process as well as a social process. It included investigations of

perceiving, imagining (1916) by using images of ink blots and faces, and remembering

by using written texts and picture writing (1932). His work on remembering identified the

initial meanings and the transformations overtime of his subjects. He explained that

memories are made up of schema and that people use and change in order to create

structures of knowledge.

Bruner (1966) suggested that learning takes place through the construction of

new ideas based on the learners' past knowledge through discovery learning that is not

age dependent like Piaget's developmental stages. Since Bruner, many educators have

adopted constructivist approaches across many age groups and across multiple disciplines.

Although multiple forms of constructivism (e.g., cognitive constructivism and social constructivism) have developed from the work of these seminal researchers, overall, constructivists believe learning is an active process and the learner is important in the meaning making process. According to Maxim (2006),

> *Cognitive constructivists* and *social constructivists* have much in common, but they differ noticeably in one key area—the extent and type of involvement of both students and teachers. Although each model requires effort and responsibility on the part of both, *social constructivists* stress the organization of "communities of learners" in which "more expert" adults or peers provide assistance to the less skilled learners. *Cognitive constructivists*, on the other hand, describe a learner-centered environment where the making of knowledge is carried out by individual students in a fashion that supports their interests and needs. For *cognitive constructivists,* learning is primarily an individualistic venture (p. 339).

Various approaches to constructivism can be characterized by the focus on how learning takes place. For example, social constructivists view learning as taking place in the interactions of a group. In classroom research, the focus would be on the learning evident in and emerging from the interactions among students as a group. Social constructivists believe knowledge is first constructed socially, and then appropriated by individuals. In contrast, cognitive constructivists view the individual learner as the agent, and they approach learning from the perspective of the individual.

In classroom research, the focus would be on how the individual student is making sense.

This study contributes to the long list of reading researchers who take a constructivist view toward meaning-making in general and toward the reading process in particular, which means focusing on reading comprehension (e.g., Anderson & Pearson,1984; Raphael, 1984) and textual transformation or composing new texts from other texts (e.g., Spivey, 1984). Constructivist research about the reading process focuses on meaning-making as an individual activity (i.e., Bransford et al., 1972; Spiro, 1980) and as a social activity (e.g., Bloome & Egan-Robertson, 1993; Green & Wallat, 1981; Middleton & Edwards, 1990).

Comprehension, Knowledge-building, and Connections

A related body of research relevant to this study was reading comprehension research. Comprehension refers to the construction of meaning (or knowledge-building) via written or spoken messages through the transaction between readers and texts. This meaning-making (comprehension) is influenced by existing background knowledge (Harris & Hodges, 1995), which means that the close relationship between comprehension and knowledge-building were critical to this study. "Comprehension is viewed as a complex process involving knowledge, experiences, thinking and much more" (Fielding & Pearson, 1994, p. 62). Research about reading comprehension has shown a strong relationship between prior knowledge and reading comprehension abilities (e.g., Anderson & Pichert, 1978; Anderson & Pearson, 1984). Comprehension and knowledge depend and rely on each other because, "the more one already knows, the more one comprehends; and the more one comprehends, the more one learns new

knowledge to enable comprehension of an even greater and boarder array of topics and texts" (Fielding & Pearson, 1994, p. 62). Hence, when reading a text, the more prior knowledge one brings, the more one comprehends, and the more one comprehends, more knowledge is gained enabling one to comprehend more texts. Additionally, according to Kintsch and Weaver (1991), "understanding is impossible without a considerable amount of knowledge activation" (p. 237). Comprehension can and should result in and support knowledge building.

One widely cited comprehension strategy is to make connections between the text and prior knowledge (Snow, 2002). Looking at this through the constructivist's lens, the reader makes connections to prior knowledge in order to form new ideas. In other words they use their schema as they are making sense of text. A brief discussion of schema is important in understanding how people make connections as they comprehend text.

The term schema was first introduced by Sir Henry Head (1920; 1926; cf. Head & Holmes, 1911-1912) and expanded upon by Sir Fredric Bartlett in 1932 in *Remembering: A Study in Experimental and Social Psychology*. In this book, Bartlett suggested that schemata (the plural of schema) influences meaning making in text through relating new information to the reader's existing understanding of the world and knowledge or to fit into organized knowledge structures. Other researchers expanded on the understanding of schema theory (e.g. Anderson, 1977; Anderson & Pearson, 1984; Rumelhart, 1980, 1984; Rumelhart & Ortony, 1977; Spiro, 1977, 1980). Rumelhart (1980) referred to schemata as the "building blocks of cognition" and describes schemata as "the fundamental elements upon which all information

processing depends" (p. 33). Piaget's (1936) contribution to schema theory was through

the identification of developmental stages through which children develop schemata to

understand the world. Think about a person's schema as a coat rack with a few

branches (or categories) of knowledge. As a person reads and attempts to understand

they find a branch or branches on the coat rack of knowledge to hang the new

information. And as they read and attempt to understand even more, they find existing

branches, combined branches, and create new branches to hang and integrate the new

information. Schema, as the term is used by reading researchers, contains "the

reader's knowledge of objects, situation and events, as well as knowledge of process,

such as reading, washing clothes, or home buying" (Kucer, 2005, p. 125).

In order to build knowledge, one has to tie new information to long term memory

or background knowledge (Kintsch, 1974) and one way background knowledge can be

identified is through connections readers make when they read. Literacy educators and

researchers (e.g., Harvey & Goudvis, 2000; Keene & Zimmermann, 1997) have

suggested that proficient readers make connections to themselves, to their worlds, and

to texts. This is often designated as text-to-self, text-to-world, and text-to-text

connections. Connections to themselves or personal connections include beliefs,

feelings, and memories of events that students have lived through (e.g., death of a

family member, earthquakes, vacations). Connections to their worlds include events or

issues in nature or society (as reported in television, movies, magazines, and

newspapers because students learn about their worlds through these media). Just as

readers make connections to their "selves" and their "worlds" they make connections to

previously encountered texts (Bazerman, 2004; de Beaugrande, 1980; Hartman, 1992;

Hartman & Hartman, 1993). Connections to texts include texts that relate to whatever students are currently reading or have read (e.g., books by the same author, genre, or topic).

These connections go beyond literal connections to include inferences. When readers read, they:

> generate inferences or go beyond the information given in the texts. Writers do not make all meanings explicit in their texts, rather they expect readers to be able to go beyond the information given and make understated connections in their own. Readers generate inferences by building links between their prior knowledge and the information generated from the texts. (Kucer, 2005, p. 135)

In order to make these inferences, readers must make text-to-self, text-to-world, and text-to-text connections. This study examined the connections students make as they are reading multiple topically-related texts to build knowledge about the topic. Furthermore, this study focused on what students say about these connections.

<p align="center">Construction-Integration Model of Comprehension</p>

An example of a constructivist researcher who emphasizes the relationship between knowledge building and comprehension is Walter Kintsch, a well-known constructivist. According to Kintsch (2009), "learners are not simply receiving information or acquiring knowledge by osmosis, but must be actively engaged in knowledge building" (p. 223). According to Kintsch (2009), learning is constructive:

> the input is the text, that is, a series of written words, organized into sentences, paragraphs and higher-order discourse units. The end result is a situation model that faithfully represents the meaning of that text; both at a local and global level,

and integrates it with the reader's prior knowledge and learning goals. Turning

the written text into a situation model in the reader's mind requires going beyond

the written word. Even constructing a decent representation of the text itself—a

textbase—requires active processing, for texts that are never fully explicit.

Inferences of several kinds are required from the reader—referents have to be

identified, coherence gaps have to be bridged, the macrostructure of the text

must be mentally represented. (p. 224)

The reader must make sense of the text by actively engaging with it by making

inferences to fill in the pronoun references and bridge the text (fill in coherence gaps)

left by the author. If readers are not active and do not make the required inferences,

they will not develop an adequate textbase. When a novice reader reads, they may lack

domain knowledge making the textbase and situation model harder to create than for an

expert reader. They may need instruction on the use of comprehension strategies as

well as how to build knowledge and the course used in the classroom where this study

took place combined both (Kintsch, 2009). Knowledge is acquired, and new knowledge

is built when a reader is actively involved in the construction process (Kintsch, 2009).

The instructional planning used in this study was based on the construction-

integration (C-I) model of comprehension (Kintsch & van Dijk, 1978; Kintsch, 1988,

1998, 2004). Although Kintsch's (2004) most recent work was focused on the computer

modeling of semantics (latent semantic analysis), reading educators continue to use his

C-I model as explained in *Theoretical Models and Processes of Reading* (Ruddell &

Unrau, 2004) to inform their instruction and research. Unlike other models of

comprehension, Kintsch's model was focused strictly on comprehension because of the

assumption that the decoding process has become automatic for reader (Kintsch & van Dijk, 1978).

Kintsch (2004) defined comprehension not as understanding the author's message verbatim, but as understanding the gist of the text, and he asserted that reading comprehension shares aspects of automatic thinking and of problem solving. While the gist construction is part of the process it is not solely what comprehension is. As he says, "Comprehension is automatic meaning construction without purposeful, conscious effort. Normal reading involves automatic comprehension, as well as conscious problem solving whenever the pieces of the puzzle don't fit together as they should" (p. 1271).

In the C-I model, comprehension is a cognitive process consisting of building the textbase and developing a situation model. The significant implication for teachers is that readers integrate the language, information, and ideas presented in the text with what they hold in their own minds. They do these activities simultaneously. According to Kintsch there are three mental representations of text: surface, textbase, and situation model. Surface level is the "memory for the actual words and phases of the text" (p. 1273). Surface level is rote memory, which has a short life. The C-I model places more emphasis on the gist of the text rather than surface level memory. The gist of the text can be identified through the textbase. The textbase is comprised of language, information, and ideas in the text and includes both microstructure, "the network of propositions that represent meaning of the text," and the macrostructure, "the global organization of ideas into higher-order units" (p. 1274). When discussing Kintsch's model of comprehension and the role of schemata, Samuels and Kamil (1984)

stated, "A specific schema always controls text comprehension since the schema dictates which micropropositions are relevant to the gist of the text" (p. 217).

When a reader is reading, the microstructure could produce many possible meanings that are sorted out when provided with rich context. Many propositions for the meaning of an idea unit are integrated with the reader's prior knowledge to produce the proposition or meaning. For the narrative text, the macrostructure includes idea units (propositions) that are grouped together to form sections such as setting, rising action, climax, and resolution in a text. Macrostructure propositions "often must be constructed by the reader" since "they are frequently inferences that are not stated explicitly in the text" (Kintsch, 2004, p. 1284). Together the microstructure and macrostructure form the textbase or the semantic level (meaning) of the text. When someone is developing his or her textbase, phrases, clauses, and sentences become larger ideas and those larger ideas become meaning. Readers bring vocabulary knowledge (understanding of the words they are reading), syntactic knowledge (understanding of sentence structures), and text structures knowledge (understanding of what kind of text or paragraph they read such as cause and effect, narrative, etc.) when they develop their textbases. Proficient readers typically develop textbases automatically and oftentimes unconsciously.

The third representation of text in Kintsch's model is the situation model. The situation model is the integration of the ideas in the text with the background knowledge the reader brings with him or her. The situation model varies by reader based on the reader's interest, purpose, and prior knowledge and is often times created in the form of an image, but not necessarily a verbal image. While reading, prior knowledge must be

retrieved at the right moment so an association can be made with the new material and the prior knowledge. Proficient readers construct a situation model automatically when reading. In order to learn from the text, a reader has to construct a situation model. Once the situation model is constructed, text integrated into a reader's prior knowledge, comprehension is supported and problem solving for new situations is possible. The situation model is dependent upon the reader's long term working memory, as knowledge is created in one's long term memory rather than in short term memory or through rote memorization. The knowledge gained or integrated into the long term working memory can then be used in later reading to further expand the knowledge. When readers develop their situation models, they create an image in their minds of the situation described in the text by tapping into their background knowledge of experiences and related knowledge. Readers bring world knowledge, topic knowledge, and discipline knowledge.

Instruction and Kintsch's C-I Model of Comprehension

America's Choice, Inc. (ACI), a private educational company founded in 1989 under the name of the National Alliance for Restructuring Education, developed the materials for use in their Literacy Navigator course. This course, based on an adaptation of Kintsch's C-I model (Kintsch, 1988, 1998, 2004; cf. Kintsch & van Dijk, 1978), provided the instructional context for studying how middle school students made intertextual connections in this study. This program adapted the C-I model for use by teachers and to guide the development of materials. Because the materials were developed for application in classrooms, some of the theoretical detail and complexity of Kintsch's published work were adapted for practitioner audiences. Figure 1 is a visual

representation of the practitioners' C-I model including a list of recommended meaning-making strategies used in instruction. This figure was included in the course materials for this study as well as in training for the course to inform the teachers about the C-I model. The figure was developed by America's Choice, Inc. It is important to note that ACI called Kintsch's situation model a mental model. Mental model is what the teacher refers to in her instruction and in her understanding of the model. For the purposes of this study, the mental model and the situation model were synonymous.

While Kintsch's model was focused on how comprehension happens from a cognitive constructivist view and on knowledge being built from integrating presently read texts with long term memory and prior knowledge, little has been found out about how students make meaning across multiple texts while building meaning. In addition, little has been reported about how students can individually make sense of multiple topically related texts when discussion is an integral part of the instruction.

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┌─────────────────────────────────────────────────────────────────────────────┐
│                    ┌──────────────┬──────────────┐                            │
│                    │ Textbase:    │ Mental Model:│                            │
│ Reader ──▶ Text ──▶│              │              │  ──▶ Knowledge             │
│        (purpose)   │ Linking of   │ Idea units   │      • Math                │
│                    │ idea units   │ combined     │      • History             │
│                    │              │ with reader's│      • Literature          │
│                    │              │ knowledge    │      • Science             │
│                    └──────────────┴──────────────┘                            │
│                          ↗                  ↖                                  │
│                                                                               │
│       Vocabulary knowledge           World Knowledge/Topic knowledge          │
│       Syntax knowledge               Discipline knowledge: domain specific    │
│       Genre knowledge                and domain general                       │
│                                                                               │
│                                                                               │
│   What the Teacher Should Address           Appropriate Activities            │
│                                                                               │
│   1. Saying what the text means         1. Think-a loud-teacher and student   │
│   2. Making ideas cohere                   modeling                           │
│       a. Understanding connecting words 2. Discussion                         │
│          and/or phrases                 3. Writing                            │
│       b. Understanding substitute words and/or                                │
│          phrases                                                              │
│       c. Tracing reference words                                              │
│       d. Connecting ideas where no link is                                    │
│          supplied                                                             │
│   3. Vocabulary                                                               │
│   4. Questioning during/after focused reading                                 │
│   5. Text structure knowledge: genre and mid-                                 │
│      level patterns                                                           │
│   6. The use of graphic organizers to illustrate                             │
│      the relationship between ideas                                           │
└─────────────────────────────────────────────────────────────────────────────┘
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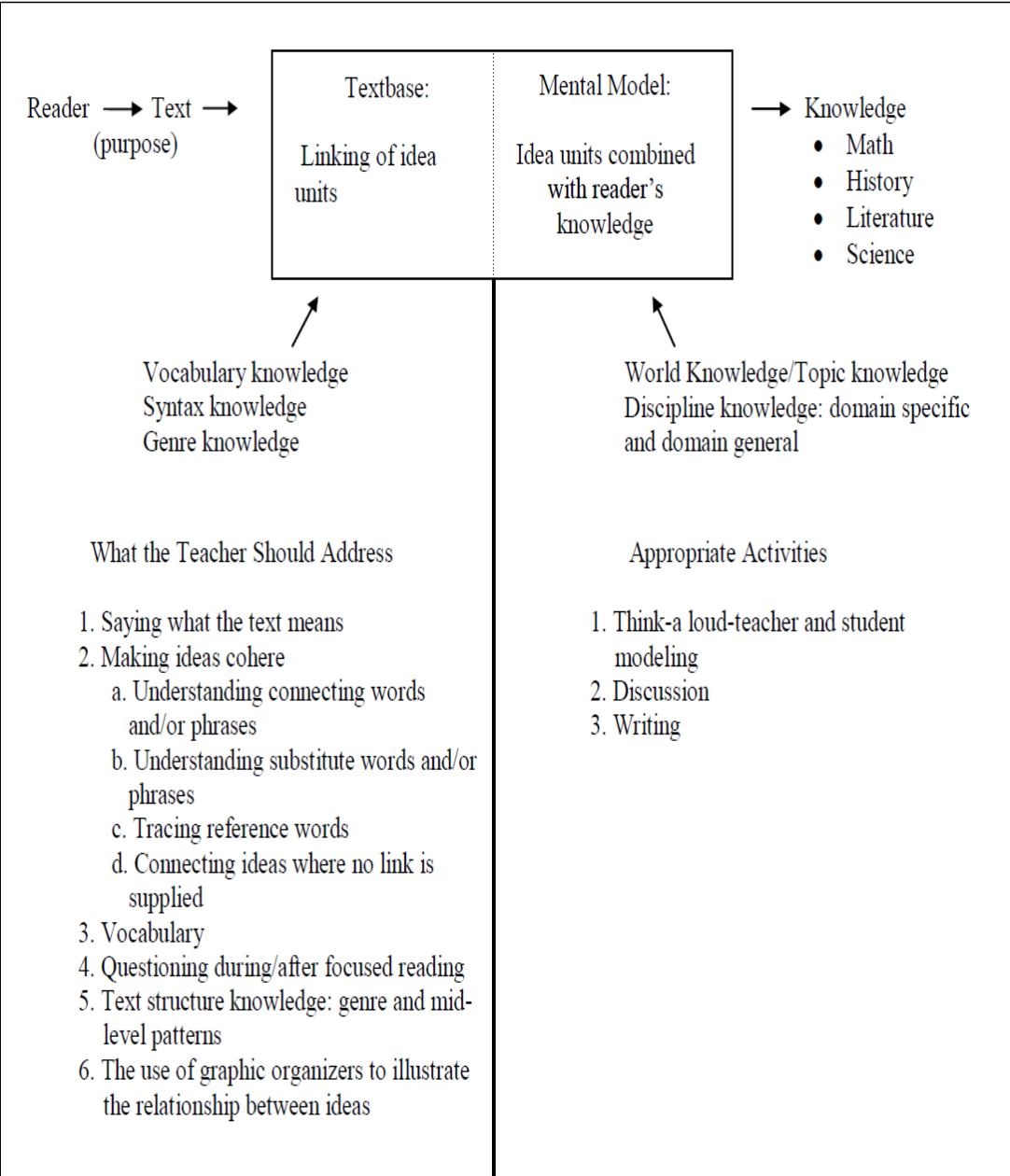*Figure 1.* Instructional interpretation of C-I model of reading created by ACI for training purposes.

Approaches Integrating Comprehension Instruction and Knowledge-building

The course used in the classroom where the study took place differed from other instructional programs in that many of the current struggling reader courses provide readers with single disconnected texts to be read for the purpose of decoding and

comprehension individually rather than providing readers with multiple topically-related

texts to maximize the potential for content learning across those texts (Kintsch &

Hampton, 2007). Biancarosa and Snow (2006) and Heller and Greenleaf (2007)

recommended the combination of content area learning and comprehension instruction

as the two can support better knowledge building, yet typical reading intervention

programs do not "group reading selections [enable students] to develop an in depth

understanding of any particular concept" (Kintsch & Hampton, 2009, p. 48). Snow

(2002) pointed out that comprehending subject matter texts in Grades 4 and up is a

significant educational problem with a need for more research. Even though a number

of comprehension strategies are available to be taught to students, the problem still

exists as those strategies have not been shown to be transferable to content area

reading comprehension.

In fact, according to Vitale and Romance (2007), "comprehension instruction has

excluded reading materials that require cumulative, meaningful, content area learning in

favor of narrative stories that do not" (p. 75; cf. Hirsch, 1996; Walsh, 2003). When

students read unrelated texts, each text is isolated and not transferred to or related to

any future texts read. There is no retention of information through unrelated texts as

there is typically no need to connect the texts.

Typical reading courses focus on decoding, recall, and fluency and teach repair

strategies such as when a reader does not understand a sentence; they go back and

reread it. This instruction usually takes place while students read a passage or a test

preparation passage in isolation of other texts. Courses or programs usually do not

focus on reading in a content area, building knowledge, and learning reading strategies

simultaneously (Kintsch & Hampton, 2009). This course differed from most courses in current use with middle school students in that the texts are topically-related and the students are building knowledge across topics as well as getting strategy instruction. To reiterate the application of Kintsch's C-I model, this instructional course not only attended to the word, phrase, clause, sentence, and paragraph level (textbase) but it also attended to the comprehension level through connecting the understanding (textbase) to background knowledge stored in long term memory (situation model).

This course served as the instructional context for this investigation of middle-school students' meaning-making. It was a particularly appropriate instructional context to investigate these research questions because this program sought to provide students with integrated opportunities for comprehension instruction and for knowledge-building. More specifically, this course provided a number of topically-related texts to present content about the scientific concept of adaptation as exemplified in texts about dogs. The instructional experiences suggested in this course included teacher demonstrations and think-alouds or strategy instruction as well as ample opportunities for discussion.

Other people have documented research about the integration of content knowledge and comprehension instruction. Vitale and Romance (2001; 2007) have developed and tested a knowledge base instructional program called IDEAS for elementary students. Their instructional program integrates science instruction and literacy skills. In a multi-year study, students in Grades 2 to 5 who received the IDEAS instruction, and the students performed better on both their science and reading state tests compared to students who received traditional instruction in science and language

arts. Vitale and Romance (2007) showed that "as students engaged in reading, they were actively involved in relating what they were reading to prior knowledge they would have gained through earlier reading and other activities" (p. 95; cf. Gagne, Wager, Golas, & Keller, 2004; Vitale & Romance, 2006). Instruction focused on content rather than reading instruction increases not only the students' abilities to comprehend, but the student effectively learns the content required to pass the state content assessments as shown in a study by Vitale and Romance (2006). These researchers looked at the IDEAS program for effectiveness but did not look at the kinds of connections students made or what the students said about making connections when they read and build knowledge. Since it has already been established that connections help students comprehend and build knowledge, this layer of research has importance for this field of study. This study filled this gap in the research in terms of looking at intertextual connections made by struggling middle school readers and what they say about what they have learned about making intertextual connections.

Theoretical Explorations of Intertextuality

Although this study was grounded in a constructivist approach to comprehension and knowledge-building, it was focused on the connections between and across texts and background knowledge and related to various explorations of intertextuality, which can be traced to Kristeva's (1967/1986) work. Kristeva first coined the term intertextuality in 1967 and made the claim that "any text is constructed as a mosaic of quotations" and that "any text is the absorption and transformation of another" (p. 37). Kristeva (1980) gave credit to Bakhtin's (1986) work in understanding of and discussion of intertextuality. Bakhtin believed that by nature utterances were dialogic. Each

27

utterance is affected by prior, and affects future utterances. Barthes (1971/1979) used the term in his work stating that "every text, being itself the intertext of another text, belongs to the intertextual" (p. 7). More recently, Allen (2000) and Hartman (1991, 1992, 1995) associated intertextuality with the idea that there is no original text, or no text is written without influence of another, as a result of Bakhtin, Kristeva, and Barthes' work. (For a more in-depth discussion of intertextuality's history, see Bazerman, 2004.)

Clearly, these poststructuralist researchers focused on intertextuality as a characteristic of text rather than as a meaning-making process among readers, and, therefore, their work was not directly relevant to this study. The concept of intertextuality has been addressed by researchers who focused on readers' cognition and social interaction as well as in reading and writing. For example, De Beaurgrande (1980) located intertextuality in the reader. In fact when, Bloome and Egan-Robertson (1993) described intertextuality as located in the reader in their literature review and said, "intertextuality is not defined as an inherent attribute of a literary text or located in the intentions and craft of the writer. Rather, whatever intertextuality exists depends on the connections made by the reader" (p. 306).

When readers read, they make connections to and between some texts, but not to others. "Through listening and reading people experience the texts of others, and through speaking and writing they produced their own texts" (Nelson, 2008, p. 443). Their texts are tied to others through discourse features, content, and orientation (Lemke, 1992).

Since intertextuality had been established as meaning-making across multiple texts, it offers a natural basis for exploring reading and writing relationships. Spivey

(1984) and other researchers sought to understand the reading writing connection in relation to intertextuality and more specifically how writers transform text they have read in their own writing. Nelson (2001) and Spivey (1984, 1990, 1997) demonstrated three major kinds of transformations including organizational, selective, and connective when they work with multiple texts as sources. Additionally, other researchers looked at the relationship of text read to text written, different ways to extract meaning from previously experienced texts into new texts, and studied the action of writing from previously experienced texts (e.g., Ackerman, 1991; Green, 1993; Segev-Miller, 2004). This use of previously read texts had an influence on what readers or writers produce later as intertextuality. Cairney (1990) believed that when someone writes a text, it is somehow a representation of other texts that the writer has previously experienced. Tierney (1992) added that the movement from using a single text to multiple texts increases the reader's or writer's ability to comprehend and compose at a higher level.

Classroom Studies of Intertextual Connections

This review of classroom studies affirmed that many literacy researchers take a constructivist stance. The general emphasis is on integrating comprehension instruction with the learning of content knowledge (knowledge-building) through intertextuality, which is defined (in the context of this study) as the interrelationship among texts. The following section synthesizes findings from a number of relevant classroom studies that focus on intertextual connections related to comprehension.

As interest in intertextuality and comprehension developed, researchers began conducting empirical research and focusing on observations and interactions with students. These empirical studies focused on intertextual connections that help a

29

student/reader/writer build knowledge, comprehend, and compose texts are particularly relevant to this study, particularly when those studies focus on intertextual connections across multiple texts. Hartman and Hartman (1993) pointed out the following:

> A number of studies suggest that good readers connect and relate ideas to their previous reading experiences over time. The net effect of this reading across texts is that a reader's understanding and response transcends that of any single passage. (p. 202; cf. Cairney, 1990; Hartman, 1991; Short, 1992)

Lemke (1992) established that "we can make meanings through the relations between two texts; meanings that cannot be made with any single text" (p. 257).

Following the categories suggested by Kallus' (2003) review, the following synthesis of relevant empirical research is organized by age/grades of students; primary, intermediate, middle, high school, and undergraduate levels. Studies that explore intertextuality from an individual stance and a social stance are included in this review. Regardless of the constructivists' stance taken in the studies, there is clearly a lack of research regarding middle school students as well as a lack of research about struggling readers and intertextual connections. Another issue addressed in this review was whether researchers focused on the use of multiple or single texts. The majority of the studies found were qualitative studies.

<center>Primary Levels (K-3)</center>

Several studies on intertextuality were done involving primary level students (Cairney, 1992; Harris & Trezise, 1997; Rowe, 1986; Wolf & Hicks, 1989). Many studies at this level yielded similar findings describing aspects of intertextuality, yet there were differences in each study. One of the first research studies dealing with

<center>30</center>

intextuality relating to early literacy was *Language Stories and Literacy Lessons,* by

Harste, Woodward, and Burke (1984). Harste et al.'s work "resulted from a study of

cognitive processes involved in learning to read and write among 3, 4, 5, and 6 year-

olds" (p. ix). Through analysis and observation, Harste et al. defined literacy learning as

a search for unity across reading and writing and across other texts that the reader or

writer has created. In the realm of semiotics, signs and symbols mean text; the relation

of that text to the formation of other texts is semiotics in its truest form. Harste and

colleagues believed that any mark on a paper by a young child intended to signify a

meaning constitutes text. For example, when a young child is asked to write something

and instead of words, the child scribbles incomprehensible symbols; this scribble is

considered text, if an intertextual connection to the meaning can be made. Also, if the

child is asked to write his or her name, such as the name Jake, and the child writes four

lines, those four lines can be connected to the name by one line for each letter of the

word Jake. The child's writing or scribbling has a meaning behind the writing and

represents a symbol or sign which then, of course, makes the writing represent text.

Harste and colleagues attended to environmental print affecting the literacy learner's

reading and writing because the learner attributes the symbols of the environmental

print to help form meaning of new text, essentially making that action an intertextual

connection. "Meaning is not something inherent in print, but created in and through

interaction" (Harste et al., 1984, p. 169).

Rowe (1986) studied intertextuality and early literacy by examining the

intertextual processes of 3-year-olds and 4-year-olds through observations. Rowe's 8

months of observations took place across students' self-selecting literacy activities at

31

such places as the writing table, art table, book area, or other centers. Rowe identified

two general types of intertextual connections. First, children link their existing

knowledge to demonstrations provided by authors by forming shared meanings, and

second, they link their current observations to past experiences. Rowe identified that

"intertextual ties had both social and individual features" (p. 2), as "children linked their

existing knowledge about literacy to the demonstrations provided by other authors" and

"mutual intertextuality occurred through conversations and demonstrations and led to

the formation of shared meanings" (p. 19).

Other researchers used discussion as a platform to study intertextuality with

primary students just as Rowe did (e.g., Cairney, 1989, 1990, 1992). Cairney's (1989,

1990, 1992) work consisted of a 2-year study with students aged 6 to 12 years old and

was reported in a three part series of publications over the years of 1989 to 1992. This

section of the discussion only focused on the studies in which Cairney (1989, 1992)

reported the results of the first graders. Cairney's (1989, 1990) results from the sixth

graders will be reported below. Cairney focused on the intertextual histories of students

and was interested in the intertextual links the students made in their writing with the

texts read aloud by the teacher. In the 1992 study, his purpose was to "determine if,

and how, children draw upon the solutions of stories they carry around in their heads"

(p. 506). The classroom observations took place across many language arts activities,

such as writing, reading, and response to literature activities. The findings indicated

that the teacher's read-alouds to the students influenced their writing as the student's

created stories that shared the same structure, settings, and plot as the stories the

teacher read aloud. Cairney (1992) concluded that intertextuality has a "rich social

dimension" (p. 507). Additionally, Cairney (1992) stated that "the quality and quantity of interactions permitted in classrooms seem to have a significant impact on the building of intertextual histories of our students" (p. 507). Cairney believed along with others (e.g., Pearson & Johnson, 1978; Tierney & Pearson, 1994) that when students have more opportunities to interact with texts, the students acquire more background knowledge with which to read and write.

Just as Cairney (1992) noticed that intertextuality has a social dimension, so did Bloome and Egan-Robertson (1993). They observed first-grade students while engaged in a whole class discussion about a story the class read in another lesson. Bloome and Egan-Robertson contended that "intertextuality is still not established until there is a social significance to it" (p. 311). Connections must be tied with interactions that are social.

Wolf and Hicks's (1989) longitudinal studies of children's language development, investigated "how children formatted narrative in different contexts such as oral telling, dictations, recitations based on picture books, and episodes of symbolic play with small replica-sized figures" (p. 334). The participants in the first study were nine children who were followed monthly between the ages of one and followed bimonthly between the ages of three to seven. The participants in the second study were 50 kindergarten children who were followed through second grade. They found that, "naturally occurring speech is a rich mix of voices and forms, where the moves between perspectives and kinds of texts convey meaning as certainly as the words do" (p. 329).

Harris and Trezise (1997) researched intertextuality in the primary grades in a study of first graders. The students in this study were observed in interactions about

reading and writing. Many times, in the lessons, "the teacher was the mediator between the children and written text" (p. 34) meaning the students did not directly write the texts but spoke aloud to the teacher who wrote down what they said and helped them formulate their texts. Harris's finding indicated that teachers can impose their intertextual findings on students and that "intertextual relations were seen to be achieved through social processes" (p. 35). Essentially, in order for teachers and students to work in the mediated interactive environment, teachers need to understand and recognize student perspectives.

Another researcher whose findings focused on the teacher's role in helping students make intertextual connections was Lenski (2001). Lenski focused on 25 third graders and identified the differences in students as learning disabled, gifted, and behavior disordered. The difference in this study and the others is that the observations were focused on discussions about a single text after reading. The findings indicated that the questions initiated by the teacher during discussion can influence the types, quality, and quantity of intertextual connections students make, and therefore, the ways students construct meaning for texts. The overall purpose of this study was to influence instruction and the teacher's questioning strategies.

The primary level studies of intertextuality identified that intertextuality has social and individual dimensions. Children's writing or scribbling represents texts if an intertextual connection to the meaning can be made (Harste et al, 1984). Intertextual ties are both social and individual as children link knowledge to demonstrations provided by other authors (Rowe, 1986). Teachers' read alouds influence students' writing (Cairney, 1992). Students need time to interact with texts in order to build their

intertextual histories (Cairney, 1992). Teachers can influence students' intertextual connections (Harris & Trezise, 1997; Lenski, 2001). Only one of the studies discussed above identified students' different reading levels including learning disabled, gifted, and behavior disordered (Lenski, 2001). The students in this study were all classified as struggling readers and were enrolled in a course for reading improvement.

Intermediate Level (Grades 3-6)

In addition to the several studies at the primary level, some studies took place at the intermediate level. Short (1991) researched intertextuality through exploring the meaning-making process within students' discussions of text sets or multiple, thematically related texts. The text sets were created based on the interests of the third and sixth grade students in the study. The text sets for both levels included books grouped by topic and author and contained fictional, informational, and poetry texts. In this qualitative study, Short observed the students discussing the texts they read from the sets. Many times the students actually read a different text then came together with their groups and "shared their books with each other, continued reading other books in the sets, and began to compare and contrast their books" (p. 4). Short observed in the students' discussions noting they made personal connections and responded aesthetically to each book. When the students met with their group, they shared their personal connections with each other. Then, as the group discussed, they made connections between the books read by the group. Additionally, Short implied that teachers need to give students "time to explore broadly without focusing the discussion" (p. 7) in order for the students to have the opportunity "to find the issues that most interested them for in depth discussion" (p. 7).

As discussed earlier in the primary level studies, Cairney's work consisted of a 2-year study with students aged 6 to 12 years old and was reported in a three part series of publications over the years of 1989 to 1992. This section of the review is focused on his findings from the sixth grade students as reported in Cairney's 1990 study. One of the differences between this study and others was that Cairney distinguished the levels of the learners in the 1990 study as struggling and proficient readers, and the different level readers had differences in articulating their intertextual links. The questions Cairney sought to answer were "What intertextual links are students able to articulate?" and "are these links different for high and low ability readers?" (p. 478). The students were interviewed to determine if they recalled the stories they had read when they wrote. Cairney indicated that "most students were aware of intertextuality" (p. 480). Additionally, Cairney identified seven types of intertextuality: (a) the use of genre, (b) use of specific ideas without copying plots, (c) use of character as a model, (d) copying plot with different ideas, (e) copying plot and ideas, (f) transferring content from expository to narrative, and (g) creating a narrative by using a number of other narratives. Regarding the reading ability differences, the findings indicated few differences between the groups. The few differences noted included low ability readers transferring the content read in expository texts to written narratives, high ability readers modeling their writing after the genres read, low ability readers creating characters modeled after characters in previously read texts, and both groups making intertextual links to content and plot. While the students in Cairney's study were not actually reading a text during the time of this study, the findings were relevant to the present study as Cairney asked the students to think metacognitively about their use of intertextuality in

36

their writing from their reading. In this study, the students were to think metacognitively about the connections they made when they read and express that in an interview; however, the students in my study were all struggling readers.

Just as Cairney's research was conducted via several parts, another relevant study took place over 7 months with 11-year-old and 12-year-old students. Three research reports (Many, 1996; Many & Diehl, 1997; Many et al., 1996) all were produced from this 7-month study, but each report was focused on different aspects of the data. The students in the studies had access to multiple texts and other artifacts during their study of World War II. In these studies, the students chose a topic about World War II to explore for a research report. Many et al. (1996) explored how students researched, collected, and presented information for their reports. In addition to the fiction and nonfiction texts, the students had access to other resources (i.e., artifacts and videos). Many et al. indicated that "students differed considerably in their impressions of the research task" (p. 18) as the students' views reflected "(a) research as accumulation of information, (b) research as transferring information, (c) research as transforming information" (p. 18). Many et al. indicated that while the students had many types of resources available for them to use as sources for their research, they did not use very many of the resources in their final projects. In fact, most of them relied primarily on the informational texts available to them.

In Many et al. (1996), the finding that no variety in research sources used was explored further. Upon further investigation, Many et al. found that the students used more varieties of resources when they were writing literary pieces, as compared to informational pieces. The purpose of this study was to look at the same data and

classroom and to shift focus toward "the ways in which students used intertextuality within diverse literacy events" (p. 51). Many et al. concluded that students' use of intertextual connections differs between oral and written discourse as well as "the functional context of discourse as literary or informational" (p. 51). Many et al. (1996) asserted that the process of compiling information for research and transforming the information into written texts is intertextual.

In the final study by Many and Diehl (1997), a case study of one student's intertextual connections yielded data indicating that when a teacher provides access to multiple resources, intertextual connections are evident when students create their own texts. This finding was demonstrated through the student's literary writing consisting of a 40 chapter novel wherein the student integrated the various texts and resources available to all of the students in the class and intertextual connections to these texts.

While this group of studies (Many et al., 1996; Many, 1996; Many & Diehl, 1997) explored intertextuality through the research process, Short, Kauffman, and Kahn (2000) focused in part on the intertextual connections students make while in literature circles. Short et al. were "interested in how students take what they understand through language as they read and talk about literature and transform those understandings by expressing their ideas in art, drama, music, or math" (p. 160). In the findings from the fourth and fifth grade classrooms, Short et al. indicated "the most common intertextual connections that students make are to movies and the mass media" (p. 165), and students make personal connections. Short et al. contended that teachers need to value these kinds of connections as they are "most easily accessible texts for children and a significant point of reference for their views of texts and life" (p. 166). While

intertextuality is usually considered as making connection between written texts, Short et al. considered texts as "any chunk of meaning that has unity and can be shared with others" (p. 165; cf. Short, 1986; Siegel, 1984).

The intermediate level studies of intertextual connections identified in this review of the literature took place in classrooms in which multiple students had access to multiple resources or in which text sets were used. An important difference in this study and Cairney's (1990) study was it focused on how struggling and proficient readers articulated their intertextual connections as well as the students' articulations of their intertextual connections. This study was similar to Cairney's study, as the students in this study were asked about the connections they made. (They had to articulate and think about their connections). This study differed from Cairney's (1990) study in that this new study was focused exclusively on struggling readers.

<center>Middle School Level</center>

Fewer studies were available regarding intertextuality and middle school students. Egan-Robertson (1998) studied an eighth grade writing club and focused in part on "the significance of the study's framing in providing opportunities for students to make intertextual links between their research studies and the literacy practices of community members" (p. 449). The students in Egan-Robertson's study had been "assigned to the lowest track in their school," just as this study which was focused on struggling readers. Egan-Robertson's (1998) research extended Bloome and Egan-Robertson's (1993) research on the social aspects of intertextuality by "investigating issues of identify and personhood as related to literacy learning and [looking] at data across time and events (Bloome & Egan-Robertson focused on one 15 minute

interaction)" (p. 465). The students in the study demonstrated they used interview data from interviews conducted with community members in their writing.

Beach, Appleman, and Dorsey (1990) conducted another study of intertextuality in the middle school. Beach et al. actually reported results involving students from Grades 8 and 11. The eighth grade students read a single fictional short story and created a map to depict the story and intertextual links and wrote about any other stories that related to the short story they read. Beach et al. asked students to "list and describe the similarities between the current and past texts" (p. 705). Students most often referenced character attributes, actions, and roles, and less often referenced "beliefs, goals, plot, or theme" (Beach et al., 1990, p. 706). Beach et al. suggested that teachers need to "encourage students to read beyond the scope of their own units or courses and draw on their own unique prior reading experiences" and "demonstrate ways of defining connections between texts and elaborating on those connections" (p. 711).

Finally, Kallus (2003) study was focused on three at-risk middle school children. Kallus found that "intertextuality and transaction enhance the learning experience of students so these experiences become more relevant and meaningful to them" (p. 221). This was evident as the students make connections to their own lives and the text they have read. Additionally, the students make connections to other texts read in and out of school and to their worlds. While Kallus was concerned with three readers who were at-risk, the study reported here investigated two entire classes of struggling readers, with a deeper focus on eight readers. Additionally, the study reported here differed in the type of texts the students read as mostly nonfiction or informational texts.

The middle level studies of intertextual connections contained participants from lower learning levels (Egan-Robertson, 1998) and at-risk students (Kallus, 2003). These studies had students read fictional texts. However the research showed that students made intertextual links between the data from interviews and their research, made links by referencing characters, attributes, and actions and roles, and made connections to their lives, other texts, and their worlds. Because of the small amount of research on intertextuality with middle school students and even fewer studies with struggling readers, this study has made a contribution to the literature because it was focused on the connections struggling middle school readers make as they read and discuss mostly nonfiction, topically-related texts.

<p style="text-align:center">High School and Undergraduate Level</p>

A widely cited researcher on intertextuality is Hartman (1995). Hartman's research included three case studies of high school students who were considered proficient or good readers. The students were asked to read five passages and then to think aloud about their connections. Hartman identified students as making intertextual links in two ways: (a) through linking ideas, events, and people and (b) through social, cultural, political, and historical connections. Hartman, thus, framed research on intertextuality by the location of the connections. The four locations he identified were "material circumstances, production apparatuses, discursive habits, and temporal occurrences" (p. 523).

In addition to the location of the intertextual links, Hartman (1995) found that "students linked themselves to what they were reading in terms of a discourse stance" (p. 547), or the social, cultural, political, and historical dimension. When the students

read passages, the discourse stance they take shapes the location of their intertextual connection. Three of the eight readers made more links within the text, reading as if they were "trying to uncover the author's meaning" (p. 547). Four of the eight students made even links within passages and between passages, reading as if they were "exploring possibilities within the text, considering alternative interpretations as equally plausible and equally well supported by an enlarged constellation of textual resources" (p. 550). Finally, one student linked mostly outside the task environment, reading as if she were "fighting with the passage, trying to absent the author of meaning by asserting her own" (p. 553).

Hartman (1995) looked at readers isolated from the classroom context. However, in this research, like Kallus's (2003), looks at readers in the whole class context as well as well as individually. Additionally, this study looked at connections made to more texts and across a longer time period than Hartman did. It focused on struggling readers versus Hartman's focus on proficient or good readers.

Chi (1995) contributed to the body of research related to intertextuality by looking at undergraduate English as a Foreign Language (EFL) learners and how they use intertextuality to make meaning. Chi stated that "intertextuality not only provides another perspective for any reader to reshape text, but it also assists EFL readers to learn a language in a more sensible way" (p. 639). As many EFL learners begin reading in English, they often read the text with only the author's or instructor's point of view and lack their own attempts to build and extend meaning. Chi showed that EFL learners can link current texts to previous texts and to new text. The 10 proficient college ELL students in the study were asked to read two literary texts and think aloud about their

connections. Chi used verbal responses and interviews with the students as data to identify four intertextual patterns: storying, integrating, evaluating, and associating. Storying involves the reader associating another story whether it is spoken or read to the current text. In integrating, the reader applies background knowledge of his or her own culture to make meaning from current text. Evaluating involves the reader making meaning by comparing current text with previous texts. In associating, the reader links the current text to previous experiences without explanation. All of the subjects' responses to the two texts fell within these patterns. Chi maintained that readers must be allowed to mold themselves as part of the mental trip that reading permits, and with EFL readers, intertextuality presents them with the opportunity to explore meaning beyond the text and to intertwine it with their natural language (Chi, 1995).

The high school and undergraduate level studies of intertextuality demonstrated students make links within passages, between passages, and outside the passage as well as assists EFL students to learn a language by intertwining it with their natural language. Both Hartman (1995) and Chi (1995) researched intertextuality using participants who were proficient readers. However, this study investigated students who were struggling readers. Additionally, it looked at intertextual connections made to more texts and across a longer time period than did Hartman and Chi.

<center>Classroom Findings</center>

To summarize findings from these empirical studies related to whether and how students use intertextuality, clearly: (a) these studies affirmed that intertextuality is part of the complex meaning-making process relevant to comprehension and knowledge-building; (b) social interaction and discussion support intertextual meaning-making, and

<center>43</center>

(c) little empirical research has been focused on students identified as struggling readers in middle school classrooms. This review of research contributed to the view of intertextuality adopted in this study and pointed to the need to study how "struggling" middle school students use intertextual connections to build their comprehension and as they learn content about particular topics.

Summary and Conclusion

This study was grounded in a constructivist perspective and assumed a view of intertextuality that focuses on readers' connections between and across multiple texts to help students develop their comprehension strategies and build knowledge about particular topics. Kintsch's (2004) C-I model of comprehension served as the initial framework for an instructional approach using multiple, topically related texts, teacher think-alouds, and student discussions. This instructional approach was chosen because it seemed to provide a particularly appropriate context for this investigation of middle school readers' intertextual connections. This study extended previous research by exploring the intertextual connections struggling middle school readers make while constructing meaning and building knowledge from reading topically-related texts.

The focus on participants who were struggling readers differed from the previous research that had been focused on proficient readers and multi-level readers (i.e., different levels of readers being taught together in one class; Bloome & Egan-Robertson, 1993; Cairney, 1989; Harris & Trezise, 1997; Hartman, 1991, 1992, 1995; Lenski, 2001; Rowe, 1986; Short, 1991). Because knowledge-building was an important focus of this study, this literature review included studies related to content area learning. No research was found that involved any direct study of the use of

intertextuality in content area classes, although the majority of the research had been conducted using multiple genres including non-fiction, which is often read in content area classes. Most important, no research was identified that explored the perceptions of students regarding whether making connections improves reading and thinking. Ultimately, this study contributed to the literature because of the focus on eight struggling middle school readers' intertextual connections and their metacognitive awareness of connections across multiple topically-related texts, most of which were non-fiction.

CHAPTER 3

METHODOLOGY

This study involved the exploration of the intertextual connections students make as they are reading multiple topically-related texts to build knowledge. The following were the four research questions regarding eight middle school students who were struggling in their reading:

1. How do the students generally function in the context of comprehension instruction based on the construction-integration model of comprehension?

2. Are they learning to make intertextual connections in the context of this instructional approach and if yes, how so?

3. What conditions contribute to their making intertextual connections?

4. What do they say about whether or how they are making intertextual connections in content area classes other than English language arts?

This chapter describes the methodology employed by this study and is divided into several sections. These sections are: Study Design, Site Selection, Gaining Access to Site and Students, Researcher's Role, Ethical Considerations, Data Collection Methods, Data Analysis Procedures, Trustworthiness, Management Plan/Timeline, Instructional Context and Setting, Participants, Teacher, Instruction: The Unit of Study, Topically-Related Texts, and A Typical Day.

Study Design

This study was a descriptive investigation of struggling readers making connections while reading and discussing topically-related texts. Qualitative research methods were used to investigate the study. Qualitative research methods refer to a

naturalistic inquiry that produces a large amount of information about students and situations because the students are studied in the real-world setting (Guba, 1978). The outcomes of this research method are constrained as little as possible (Guba, 1978). Qualitative research provides a depth of understanding, typically attained through fieldwork, in which the researcher spends a considerable amount of time in the setting of the study (Patton, 2002). Whereas quantitative researchers employ internal and external validity, reliability, and objectivity to measure the trustworthiness of the research, qualitative researchers employ credibility, transferability, dependability, and conformability to measure trustworthiness (see the section of Trustworthiness below for relevance to this study; Guba, 1981).

In this study, a grounded theory design was used. According to Patton (2002), grounded theory is "inductively generated from fieldwork, that is, theory that emerges from the researcher's observations and interviews out in the real world rather than in the laboratory" (p. 11). Inductive analysis of the data yields general patterns and emergent categories that are grounded in cases and contexts (Glasser & Strauss, 1967). Data from qualitative research yield thick descriptions of the cases and situations from observations and direct quotes from students from interviews and case studies.

Site and Program Selection

The site was a middle school reading classroom in a district located in North Texas. The population of the school was middle class with diverse demographics. This site was awarded status as a Recognized school according to the Texas Education Agency (TEA) based on their Texas Assessment of Knowledge and Skills (TAKS) test administered in the spring of 2008. For a school to be awarded the status of

47

Recognized, it must meet 75% standard for each subject. The students were 26 eighth-grade students. Nineteen students were Caucasian, six were Hispanic, and one was African-American. Five of the participants were economically disadvantaged according to their eligibility for free and reduced lunch status. The students were placed in the classroom because they required remediation according to their standardized test scores from the previous year. The teacher in the classroom had taught middle school reading and language arts for 5 years. The site and classroom were chosen because of my close relationship to the school, classroom (being employed in the school) and instructional program utilized.

In previous years, the students were required to participate in a tutoring program which pulled them out of their electives to get the needed literacy instruction. This was the first year the school offered an intervention course for students. This instructional program was based on the use of multiple topically-related texts as sources for the instructional material. The instructional materials used in the classroom were part of an intervention program the school was piloting. The first unit contained 30 lessons intended to help students learn to comprehend text while building knowledge. The instruction used in the classes was derived from the construction-integration (C-I) model of comprehension (Kintsch, 1988, 1998, 2004; cf. Kintsch & van Dijk, 1978). According to the C-I model, comprehension is a cognitive process consisting of understanding the textbase and developing a situation model. The gist of the text can be identified through the textbase. The textbase is comprised of language, information, and ideas in the text and includes both microstructure, "the network of propositions that represent meaning of the text," and macrostructure, "the global organization of ideas into higher-order units"

(p. 1274). Situation model is the elaboration of the text content with the reader's own knowledge. Essentially, readers integrate the language, information, and ideas presented in the text with what they hold in their own minds. Comprehension occurs when the text and the information the reader already knows, has read, or has experienced come together as part of meaning-making.

There were 22 related texts on the adaptation of dogs that the students read and discussed during the first unit. As discussed in Chapter 2, the differences in the course in this study and other courses was the focus being strictly on comprehension because it was assumed that the decoding process has become automatic for readers. Many of the current instructional programs provide readers with single disconnected texts to be read for the purposes of decoding and comprehension individually, rather than multiple topically-related texts. Additionally, the course combined instruction on comprehension strategies as well as knowledge building about the scientific concept of adaptation.

The teacher in this classroom received six hours of training on the program, which included an in-depth study of how to facilitate the student's use of comprehension strategies. Prior to this study, the teacher led professional development sessions for the district on literacy learning. The previous year the teacher was part of an eighth grade language arts team and all of the teammates' students passed the state's TAKS assessment. These teachers represented the only team in the school to achieve the 100% passing rate with their students.

<center>Gaining Access to Site and Students</center>

I began with a convenience sample consisting of two classes in the school where I was employed as the library media specialist. Being an insider provided the study and

<center>49</center>

me with additional background information that might have been missed without my being part of the community. I was an active participant and an employee in the school hosting this study, so gaining access was not a problem. The administration supported my participation in this classroom and allotted me the time to spend in the classroom.

Additionally, the students knew me as the librarian and a familiar face, which added to their comfort with me being present in the classroom. Their familiarity with me reduced the observer effect on the students, so there was little, if any, atypical behavior during my observations. The students and parents were asked to grant permission for their participation in this study (see Appendices A and B). The students were observed for the first unit lasting approximately 12 weeks during the discussions of the assigned texts. They were surveyed in Week 5 of the lessons to gain a better understanding of what they were learning that may have not be seen through observation. Once the student surveys were conducted, I looked at the data for emerging variations between the students. That maximum variation sample (Patton, 2002) yielded some information-rich cases, which I used to investigate the phenomenon further by focusing my observations and interviewing these cases. According to Patton (2002), a maximum variation sample is "purposefully picking a wide range of cases to get variation on dimensions of interest" (p. 243). In the findings, I refer to these eight students as the focus students.

Researcher's Role

My role as researcher was one of part participant and part observer (Patton, 2002), because I observed the everyday class activities regarding reading and discussion and engaged in some activities through questioning the students about their

connections. Being an educator in the building, my emic perspective (Patton, 2002; Pike, 1954) enabled me to understand the setting as an insider in the classroom. The students had full disclosure as to what I was doing in the room and what I was researching. The classroom teacher had been a teaching colleague of mine for four years. She believed in the premises of the program and employed the ideas of making connections when reading and engaged in discussion in her classes daily. The data and final results were shared with her at the conclusion of the study.

Researcher's Biography

My interest in making connections when reading began with my teaching experience. Still, I can now see its relevance to my experiences with learning to read in school which were addressed in Chapter 1. I taught struggling middle school readers for seven years and observed my students struggle with making connections when reading. I wondered what I could do to help them, what their peers could do, and what other teachers could do. My experiences in the position of library media specialist inspired me to explore this issue more, because I constantly saw students who only made intertextual connections between books in a series and not other connections to their lives, the world, and other texts. I began my doctoral program in reading education at the University of North Texas, hoping to find some of these answers. Eventually, I became a research assistant to an organization interested in literacy. I studied the C-I model by Kintsch (1988, 1998, 2004) for a year. The program used in the classroom in which this study took place was written to put the ideas of the model into instructional practice. I was a co-author of this intervention program. While I was writing this program, the teacher in the focus classroom expressed interest in this model of reading

and started using some of the techniques in her classrooms well before the study began. As the research questions indicated, this study was not intended to be a test of the success of this program. Rather, the instruction based on this program, or course of study, was the context for studying whether and how middle school readers make intertextual connections as they read and discuss their readings.

Ethical Considerations for the Study

Following a presentation of the proposed study, consent from the district and teacher was granted. It was essential to gain parental consent of each student involved in the study (see Appendices A and B). It was important that I made the students feel comfortable talking to me in the interviews and knowing that their identities were kept anonymous between the students, the teacher, and myself. The findings were shared with both the students and teacher in an effort to gain their confirmation of the findings. The benefit to the students, teacher, and the school was the reduction of the student-teacher classroom ratio and providing students with more individual attention, with particular focus on comprehension instruction.

Data Collection Methods

The following were the data collection methods used in this study: observations, surveys, and student interviews. The observations took place in the literacy classroom. During these observations, I took field notes on the students' discussions about the assigned readings. The observations took place for 90 minutes (45 minutes for each class period) daily for 12 weeks, approximating to 90 observation hours. Observations were recorded using double column notes with low inferences recorded in the left column and interpretations, or higher level inferences, recorded in the right column. At

52

the conclusion of each day I revisited the notes, expanding them to include more detailed descriptions of what was happening in the class, the student's reactions and discussions. Many times the classes were recorded so I would have something to reference while expanding the notes. These recordings were not fully transcribed; rather they were used to help create the day's notes. As the notes were expanded they were put into a word document in an effort to explain the day's activities. Often these notes included mini transcripts of the teacher and students conversations. The observations began with a focus on the context of the class, the participants, the activities, and the connections the students were making through discussion. As the notes were analyzed, the observations became more focused on the types of connections the students were making, the students' interest and engagement, and the student's identification and use of the comprehension strategies.

In Week 5, all participating students were surveyed regarding the intertextual connections they made when reading related texts, their use of the intertextual connections in content area classes, and what they were learning throughout the lessons. I created the survey and field tested it with 23 eighth-grade student library aides from the same school as the study's students. The aides were asked to complete the survey then give me feedback about the clarity of the questions. They were asked if the questions made sense to them and what could be changed to make the questions clearer to students. The original survey identified the "text" using the word "text," but the aides stated it would be clearer if I stated "books, passages, or stories" instead of just calling them "texts." That change was made based on their recommendation. Additionally, the original survey only had nine questions and was based on the

observations in the weeks preceding the survey. The observations and early analysis

prompted the addition of three questions (Questions 10-12).   The administered survey

contained 12 questions answered on a Likert scale (see Appendix C). Two questions

(Questions 1 and 12) allowed participants to provide open-ended responses.

I administered the survey during the fifth week of class observations via

computer. The library media center's website, which I managed, contained a place to

create a survey. During class time, the students logged on to my website and completed

the survey by clicking the box contain their response or supplied an open-ended

response to questions requiring such detail. The survey took all students less than 20

minutes to complete. This survey provided a focus for further observation of the

classroom discussions as well as yielding information used to choose the focus

students who would later be interviewed.

Based on information from the classroom observations and surveys, eight

information-rich cases or focus students were chosen for interviews. In order to achieve

a maximum variation sample (Patton, 2002), the students were chosen to provide as

wide a range of gender, ethnicity, involvement in the class, and their survey responses

as possible. Table 1 contains a summary of the focus student characteristics. One of

these characteristics is participation at high, medium, and low. High participation means

they participated in the discussions daily. Medium participation means they participated

2-3 times a week. Low participation means they participated 1-0 times a week. The

eight students were interviewed in Week 10 in order to further explain and explore the

connections the students made when they read related texts, their use of the strategies

in other content areas, and what they were learning about making intertextual

connections. The interviews had a semi-structured format, which is a flexible format

during which new questions can be asked based on how the participants answer the

questions (Patton, 2002; see Appendix E). The interviews were audio taped and field

notes were written. Observational notes during the interviews were taken to document

students' nonverbal communication and information related to context.

Table 1

Focus Students' Characteristics

Pseudo-nyms	Gender	Ethnicity	Participation in Class (High, Medium, Low)	Comment on Survey Responses	Additional Information
Darin	Male	Caucasian	High – Constant Leader in class Made many text-to-self connections	• Likes to read, but only his kind of books • Interested in dogs • Sometimes make connections	Typically had behavior problems, but not once the unit started
Eric	Male	Hispanic-ESL	Medium Slow start, participated in small group only, but eventually participated with the whole group	• Likes to read • Thinks it is hard to make intertextual connections	Eager to share about his own dog
Lynn	Female	Caucasian	High – Constant Enrolled in school late, but asked to take the text home so she could participate in class discussions.	• Does not make intertextual connections easily • Read outside class about dogs since unit began	She modeled the flipping back for the class often. They followed her lead.
Matt	Male	Hispanic-ESL	Medium Quiet, but did participate in small group discussions. He eventually lead his small group discussion	• Easy to make intertextual connections • Likes to read • Has read about dogs outside of class	Struggled with spoken English, but participated anyway.
Nancy	Female	Hispanic-ESL	High – Constant Usually the first to answer questions	• Not interested in topic being read • Likes to read about politics • Rarely makes intertextual connections • Did not read about dogs outside of class	Learning disabilities Does read about politics and government outside of class.

(*table continues*)

Table 1 (*continued*).

Pseudo-nyms	Gender	Ethnicity	Participation in Class (High, Medium, Low)	Comment on Survey Responses	Additional Information
Nelly	Female	Caucasian	Low – Medium Slow start to participate, but as the unit progressed she volunteered to participate rather than the teacher having to call on her	• Sometimes makes intertextual connections when reading • Connections make it easier to read • Does not like reading	She is very shy and quiet in her other classes, but she did begin to participate in this class
Sam	Male	Caucasian	Medium – High Started in a group with his friends and they did not get much accomplished, so he asked to switch groups. In his new group, he participated.	• Found it easy to make intertextual connections • Does not really like to read	Willingness to learn
Steve	Male	Caucasian	High Often times his participation in discussion was off topic	• Intertextual connections makes it easier to read • Sometimes makes connections in content area classes • No desire to read about dogs outside of class	Easily distractible and has a hard time completing assignments

Data Analysis Procedures

I utilized immersion strategies (Crabtree & Miller, 1992; Marshall & Rossman, 2006) for data analysis. The "categories are not prefigured and which rely heavily on the researcher's intuitive and interpretive capacities" (Marshall & Rossman, 2006, p. 155). The procedures included observations, surveys, interviews, and triangulation. Each week, I revisited the expanded field notes from each day's observations to reflect on the process and began looking for codes and patterns using the constant comparison method of analysis (Glasser & Strauss, 1967). The constant comparative method contains four stages: "1) comparing incidents applicable to each category, 2) integrating

categories and their properties, 3) delimiting the theory, and 4) writing the theory"

(Glasser & Strauss, 1967, p. 105). The continuous comparing and integrating of

categories and properties from different parts of the data is essential to this method.

According to the grounded theory method, theory is built from the data generated from

fieldwork (Patton, 2002), and early and ongoing analysis is essential to the

understanding of the data and the study.

<div align="center">Observations</div>

Each week, I revisited the expanded field notes to reflect on the process and

began looking for codes and patterns. These notes were read through first to begin

identifying the codes. Hand-written notes were added to the day's description identifying

codes such as these: types of connections the students were making, students'

behavior, teacher activities, and comprehension strategies. The notes and codes were

read again to begin identifying the categories that were emerging. (See Appendix H for

example class discussion with developing codes.) This analysis helped to focus the

observations in the class since the observations began focusing on the context of the

class, student participation, the participants, and the daily activities and focused later on

the types of connections the students were making, examples of student interest and

engagement, and the students' identification and use of the comprehension strategies.

Additionally, these notes assisted in the identification of the focus students as they

contained information about the students' participation, use of intertextual connections,

and understanding of the topic in the text.

Thematic categories were identified from the codes. The data were broken down

into codes, and as additional data analysis was completed, patterns began to emerge.

Initial codes that emerged in the observations were, text-to-text, text-to-self, and text-to-world connections, use of vocabulary, identification of comprehension skills, engagement, interest, and motivation, self-confidence, building background knowledge, and teacher modeling. The groupings of patterns with other similar patterns formed categories, and categories helped formed theory. The observation codes were analyzed using the constant comparative method. Categories included: text-to-text, text-to-self, identification of course materials, recall of vocabulary, recall of skills, knowledge building, and content areas. This early analysis was necessary in order for the observation strategies and future interviews to be revised, helping to develop a greater understanding of the connections the students made.

Surveys

The computer surveys were analyzed first by the computer calculating the percentages of response for each question's response. Each question across all the students was analyzed first by analyzing all of the responses to each question (See Appendix D). Each question's open-ended response was analyzed individually by identifying codes and categories. The data from the surveys were analyzed to find codes and categories. Initial codes such as: connections are easy, types of texts the students read, and outside reading. Then, the surveys as a whole (student by student) were examined to provide information regarding each student's different attributes in order to identify the information-rich cases that represented a maximum variation sample (Patton, 2002). I then chose eight information-rich cases that represented different levels of perceived abilities to make connections, use in content area classes,

58

interest in the course, and feelings toward reading. The investigation was further

focused by observing and interviewing these students.

Interviews

The interviews of the information-rich cases, which were audio taped, were

transcribed identifying the spoken words as well as emotions they expressed (e.g.

raised voice, smiling, body language). These notes were stored in a Word document.

Following each interview, the interviews were transcribed and the notes were

incorporated into a summary of the student's responses. Each interview was coded and

analyzed using the constant comparative method. Initial categories included: teacher

effect, interest, text-to-self, application of knowledge, feeling toward reading, texts read,

skill identification, purpose of the class, text-to-text, self-confidence, believed

improvement, use in content area classes, and personal perceptions. (See Appendix I

for an example code and category map from one interview.) All the interviews' codes

and developing patterns were analyzed to identify 23 categories. "Teacher influence"

was a category. However, it was not used in the findings. Instead "teacher influence"

was used to inform the implications for practice. (See Appendix J for the initial combined

codes and category maps for the interviews.)

Triangulation of Data

The codes and categories from data analysis were triangulated across the

multiple data sources. Therefore, data from the observations, surveys, interviews, and

field notes were used to strengthen the basis for developing the findings of the study

(Patton, 2002).

Trustworthiness

Krefting (1991) identified the strategies of credibility, transferability, dependability, and confirmability in order to point to criteria that increase the trustworthiness of qualitative research. The worth of this study was determined by using Krefting's strategies and criteria. As Krefting explained, credibility is the "adequate submersion in the research setting to enable recurrent patterns to be identified and verified" (p.176). Credibility in this study was increased by my extensive field experience, reflexivity through keeping a field journal, triangulation of the data gathering methods, and discussing my research process and results with a knowledgeable colleague. Transferability was addressed through the thick description of the students, context, and setting in order to enable others to transfer the findings to like situations. Dependability which refers to the consistency of the findings was addressed in this study by providing a thick description of the methods of gathering data and the data analysis and interpretation and by engaging in a code-recode procedure through which the data were coded, left untouched for two weeks, then recoded and compared to the initial codes. Finally, confirmability was addressed through member checking with the students and an external audit (by the doctoral class discussed below) of my interpretations of the interviews and observation data by a peer and through the triangulation of data collection methods.

Management Plan and Timeline

The parent and student permissions were secured in September of 2009, followed by the beginning of the intervention program and observations. The observation of the lessons took place for the entire 12 weeks of the first unit. The

student surveys were administered during the fifth week of the intervention course. The data from the surveys helped to identify information-rich cases and to provide focus for the remaining observations and the interviews.

The interviews took place from December to January of 2009 and were analyzed and shared with the students and teacher shortly thereafter. The data from all the sources (i.e., observations, surveys, and interviews) were analyzed for interpretation and theory building. The procedures and data were discussed with other graduate students with experience and expertise related to the topic under study, following the survey administration and the interviews. I visited a doctoral level class at the University of North Texas and shared the purpose of this study and procedures used in the data collection and data analysis. The graduate students were asked to read and code at least three interviews. The codes were discussed, and the group came to a consensus about the patterns and categories. The codes and categories were consistent with my analysis and helped to ensure I was attending to all information in the data. Table 2 depicts the timeline during which the data were collected.

Instructional Context and Setting

To increase trustworthiness of the qualitative research, providing a thick description was necessary (Geertz, 1973). With a thick description of the students, context, and setting, the transferability of the findings to similar contexts and situations increases (Krefting, 1991). The purpose of this section is to provide a thick description of the instructional context and setting.

Table 2

Timeline for Data Collection

	Aug–Sept 2009	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July-Sept 2010
Planning and securing the permissions	→										
Discussion of the research process and results with another qualitative researcher bi-weekly		⟶									⟶
Student observations			→								
Survey of the students		⇒									
Analysis of surveys and observation data	→										
Identification of information rich cases for further study			→								
Interviewing of the information rich cases					→						
Analysis of the interviews						→					
Interpretation of analysis and theory building								→			

This study took place in a school district located in the Dallas-Fort Worth, Texas area at a middle school serving students in sixth through eighth grades. The district was transitioning from being a rural district to a suburban district and experiencing fast growth. There were 13,194 students on 19 campuses in 2008; of which, according to the TEA's categories, 72.9% were Caucasian; 17.1% were Hispanic; 6.4% were African American; 2.8% were Asian/Pacific Islander; and 0.8% were Native American. Additionally, 21.2% were economically disadvantaged; 31% were at-risk; and 5% were limited English proficient. According to the Academic Excellence Indicator System (AEIS) report from the TEA, the district has been awarded the Recognized rating by earning a 75% pass rate on TAKS.

The school at which the study took place had an Academic Acceptable rating from the TEA, meaning that 60% of the 922 students passed the most recent TAKS. The demographic breakdown of the school was 75% Caucasian, 16% Hispanic, and 5% African-American students, and 17% of the students were economically disadvantaged. The teachers in this school were trusted by the administration to make decisions about instruction and behavior. Upon entering the school, it is not unusual to have a student hold the door for guests, adults, teachers, etc., as the school employs an initiative about social behavior. Most of the students and teachers greet people and students with a smile. In fact, the principal is known to play pranks on the students and teachers, so his relationship with them is very casual. Most faculty and students seems to consider school's learning environment to be fun.

This study took place in two eighth-grade reading improvement classrooms. In the unit that was the focus of this study, the students read and discussed a set of

topically-related texts. The goal was to teach the students how to comprehend texts. Within the context of the lessons, the students were encouraged to verbalize the connections they made while reading.

The first unit began in October after the permissions were secured and the materials arrived. This was the first year a reading improvement course was offered at this school, so there was no curriculum before this unit began. Prior to October, the teacher was using the students' state assessment information to identify her students' areas of weakness in order to create lessons for the class. The majority of her texts were chosen from *National Geographic for Kids* magazines. Many of the lessons focused on helping students infer and draw conclusions from the texts. The teacher did many think-alouds to demonstrate her inferences while the class read many of the articles aloud.

<div align="center">Participants</div>

The eighth-grade students in this study were placed in the reading improvement class because they required remediation according to their standardized test scores from the previous year. The initial participants in this study were 26 eighth-grade students who were 46% Caucasian male, 19% Caucasian female, 19% Hispanic male, 11.5% Hispanic female, and 3.3% African American female. Of the 26 initial students enrolled in the reading improvement class, eight of the students were chosen for individual interviews based on their gender, ethnicity, involvement in the class, and survey responses. The intent was to provide a sample across a broad spectrum of the students in the class. These eight students included: three Caucasian males, two Caucasian females, two Hispanic males, and one Hispanic female. The findings in this

study describe each of the eight students in great detail. All students' names that appear in this study are pseudonyms.

Teacher

Mrs. Hughes (pseudonym) was in her fourth year as a language arts teacher. The previous year she was part of an eighth-grade language arts team whose students attained a 100% passing rate on the state's TAKS assessment. Mrs. Hughes believes reading should be enjoyable and provides her students with individual choices for reading. The students seem to enjoy her as a teacher, and she often talks to students about pop culture and relates well to them. She is seen as a cool teacher, but she has high academic and behavioral expectations. She feels strongly about using discussion as an instructional tool in literacy and has received 6 hours of training on the program which included an in-depth study of how to facilitate effective discussions with students.

Prior to this study, Mrs. Hughes led professional development sessions for the district on facilitating discussions with students as well as on book clubs. Helping students construct connections in order to increase retention and comprehension has been one of Mrs. Hughes' goals. Of the 26 students in the study, she had taught 17 of them the previous year in her seventh grade language arts course and had 15 of them this year in her eighth grade language arts course as well as in the reading intervention course. A reading intervention course was not offered to the students the previous year. In summary, she had 15 of the students enrolled in the reading intervention course twice daily, once for English language arts and once for the reading intervention course.

Instruction: The Unit of Study

The instructional approach to the unit was based on Kintsch's (1988, 1998, 2004) C-I model. According to the C-I model, a reader needs to be able to link ideas of the text and use background knowledge, and the teacher's role is to model meaning-making strategies through the think aloud process. The teacher models meaning-making and use of meaning-making or comprehension strategies, and as the lessons progress, the students do their own think-alouds and meaning-making.

The meaning-making or comprehension strategies students were taught to use included: summarizing (sentences, paragraphs, and entire texts), inferring, vocabulary, questioning the text during and after reading, text structure knowledge, and creating and using graphic organizers. The instructional practices chosen to teach students to use their background knowledge included: think-alouds (teachers and students modeling), discussion, and writing. The teacher demonstrated and expected students to use the following meaning-making or comprehension strategies:

- Paraphrase

- Summarize

- Identify main ideas and supporting details

- Determine importance

- Infer

- Understand sentence and text structure

- Use prior knowledge

- Understand author's purpose

- Link understanding between and across texts

66

- Draw conclusions

- Question the text

- Check for their understanding

The instructional practices in the lessons were not rigid and were adapted for each lesson as was the method of reading (e.g., silent, aloud, partner). The teacher's edition of the unit curriculum outlined the objective of each lesson (the meaning-making or comprehension strategy) as well as the big ideas (the content), then suggested possible discussions, think-alouds, and methods of reading. The teacher had the flexibility to change the method of reading (e.g., silent, aloud, partner) and questions used for discussions as long as the focus of the lesson was on the meaning-making strategy and adaptations of dogs. Each lesson did follow a typical lesson plan format including introduction, work time, guided practice, and reflection. The lesson matrix in Table 3 includes the lesson number and the meaning-making strategy used during each lesson. See Appendix F for a sample lesson.

The major difference between this course and other courses on comprehension was that the students were building knowledge about the scientific concept of adaptation as related to dogs. During each lesson the students were asked to recall what they read and talked about in the previous lessons in relation to the adaptation of dogs and comprehension strategies. They were asked to think about how the information they learned about in previous lessons helped them to understand the new text better. They were constantly building knowledge while learning how to comprehend.

Table 3

Lesson Matrix

	Textbase							Mental Model		
Lesson Number	Pronoun Reference	Connecting Words	Questioning During Focused Reading	Vocabulary	Saying What the Text Means	Text Structure Knowledge	Graphic Organizer	Think-Alouds and Teacher Modeling	Discussion	Writing
1					x			x	x	
2			x		x		x	x	x	
3					x		x	x	x	x
4	x	x							x	
5						x	x		x	x
6			x	x	x			x	x	
7					x		x		x	x
8					x		x		x	x
9	x	x				x		x	x	
10							x			x
11							x			x
12			x	x				x	x	x
13					x		x	x	x	
14			x		x				x	
15					x		x		x	
16					x				x	x
17		x				x	x		x	
18					x				x	x
19					x		x	x	x	
20			x		x			x	x	
21			x		x		x			
22			x	x	x		x	x	x	
23			x		x			x	x	
24			x		x	x				x
25	x	x	x		x				x	x
26	x	x	x	x	x			x	x	
27	x	x	x	x	x			x	x	
28									x	x
29									x	x
30									x	x

Topically-related Texts

The topically-related texts in this study consisted of 22 texts about dogs. These texts were included in the first unit of the America's Choice Literacy Navigator course. Of the 22 texts, 21 were nonfiction and one was fiction. All texts but the first one were extracted from published books and magazines. The first text was written by America's Choice. The first text was the fiction text and was about a dog who visited a dog spa. The nonfiction texts focused on the scientific concept adaptation via the following topics: adaptation of coyotes to humans; difference between dogs, wolves, and coyotes; the evolution of dogs; selective breeding; selecting a dog by its characteristics; jobs dogs do; historical look at dogs; hero dogs; designing breeds of dogs; dog and human relationships; emotional and physical benefits of owning pets; and dogs' burden on society. The texts increased in difficulty as the students progressed through the unit, and the final text was written on a 12th grade reading level. Clearly, these texts were chosen to support knowledge building and concept development, not merely instruction about comprehension strategies.

Typical Day

Although the lessons varied in terms of the specific activities and texts, the lesson structure was the same each day. Each lesson started with an opening, usually a recall of the previous day's reading, an introduction to selected vocabulary for the reading as well as questions to assess the students' background knowledge of the day's text. The students participated in guided practice before they worked independently. The guided practice included the students working as a class to discuss the text through guided teacher discussion. The students read the articles in a variety of ways that

included taking turns reading, teacher reading, as well as silent reading. The students'

activities varied from chunked reading with partner discussion to paragraph reading and

think-pair-share discussion.

Independent practice included students working in small groups or with partners

on activities such as developing graphic organizers, creating websites, or summarizing.

These activities were designed to help the students create connections to the reading

that was done in the guided practice. The final piece of the lesson was reflection.

Students used this time to think about the connections they made that day. The

students did this through writing informal reflections, sharing with the class through

discussion, or creating graphic organizers.

Silent reading time was not a part of this particular reading class because these

students were given time for self-selected, silent reading in their language arts classes.

Every lesson included a discussion about reading strategies the teacher reviewed with

the students, even if the discussion was just a reminder of what they learned the

previous day. The teacher brought her theoretical frame which (according to

conversations with her) emphasized student discussion, meaning-making, and gradual

release of responsibility (Pearson & Gallagher, 1993). The teacher's theoretical

understanding was generally consistent with the principles underlying the unit, and her

perspective influenced particular decisions in each lesson. The students brought diverse

backgrounds and academic experiences into the class and to which the teacher needed

to adapt. In short, there was no expectation that this unit would be applied in a

standardized way.

Summary

This study was used to explore the intertextual connections students made as they read multiple topically-related texts to build knowledge. It was a descriptive investigation using a qualitative research method of grounded theory. The data methods included observation of discussions, collection of surveys, and interviews with students. This qualitative investigation included widely-accepted procedures to ensure the trustworthiness of the findings. Chapter 4 reveals the findings. Chapter 5 identifies the implications and future research needs for this area of study.

CHAPTER 4

FINDINGS

The purpose of this study was to explore the intertextual connections students make as they are reading multiple topically-related texts to build knowledge. This study took place in two classrooms in which a set of topically-related texts was read and discussed. Discussions focused, in part, on the connections students made while reading. Exploration of the intertextual connections in the construction of meaning was accomplished by documenting the discussions, student surveys, and interviews with students. This study was designed to answer these four research questions regarding eight middle school students who were struggling in their reading:

1. How do the students generally function in the context of comprehension instruction based on the construction-integration model of comprehension?

2. Are they learning to make intertextual connections in the context of this instructional approach and if yes, how so?

3. What conditions contribute to their making intertextual connections?

4. What do they say about whether or how they are making intertextual connections in content area classes other than English language arts?

The discussion elaborates on the following four major findings, one in response to each research question:

1. Struggling middle school readers responded in individualistic ways to comprehension instruction based on the C-I model, particularly in terms of their degree of participation and their learning outcomes, but none of them responded as stereotypical struggling readers.

2. In the context of instruction based on the C-I model of comprehension, students learned (a) to make a variety of connections, (b) to talk about their connections, and (c) to feel more confident about making those connections.

3. Students made connections most readily when they were interested in the topic they read about and when they engaged in discussion with others about the text.

4. Students sometimes made connections in content area classes other than English language arts when given the opportunity in those classes.

The data from the observations included all of the students in class. Eight of the students participated in in-depth interviews. Excerpts used to support the findings in the discussion below were taken from all data sources, not just from the interviews; therefore, the comments cited in the presentation of the findings could be from any of the 26 student participants in the study.

As explained in Chapter 3, the data were coded and then the codes were grouped into categories that informed the analysis for each research question. For each of the findings presented below, the figure preceding the explanation delineates how the finding was informed by the claims emerging from this analysis. The data excerpts on the far right of each figure are examples of excerpts from the qualitative data used to inform these findings.

Finding 1: Individualistic and Non-Stereotypical Responses

In response to the first research question, the data analysis clearly showed that these students responded in individualistic ways to comprehension instruction based on the C-I model, particularly in terms of participation and their learner outcomes but that none of them responded as stereotypical struggling readers. The data analysis of the

73

surveys, observations from all the students, and interviews from the focus students provided evidence to support Finding 1. As explained earlier in Chapter 3, the focus students were chosen to represent a maximum variation sample (Patton, 2002). They were chosen to represent a range in terms of gender, ethnicity, behavior, participation in class, and based on their survey responses, and the students represented the range of students in the class. Figure 2 delineates how the qualitative data analysis led to this finding, and the descriptions of the focus students serve to illustrate the range of responses from all of the students. After the descriptions of the focus students, a more general synthesis of the data was utilized to elaborate on this first finding.

Focus Students Present Individualistic Responses

Darin, a Caucasian student, spent a lot of time in the alternative education school the previous year for behavior issues. He typically did not spend much time in class due to his behavior, but when I visited the class to explain my research, he showed excitement. He asked about the course and told the class about watching a National Geographic special on dog domestication. During the time I was in the classroom collecting data, he participated in class, often leading the discussion and setting the tone for the class. All of the students in the class seemed to feed off his excitement. He talked at great length about his own dog, an Akita, making many text-to-self or personal connections. He was chosen as a focus student because of his past behavior and academic issues; leader behavior during the class discussion; and his answers on the survey which indicated he liked to read, sometimes made intertextual connections when reading, and was interested in reading about dogs. Darin's behavior during this unit was
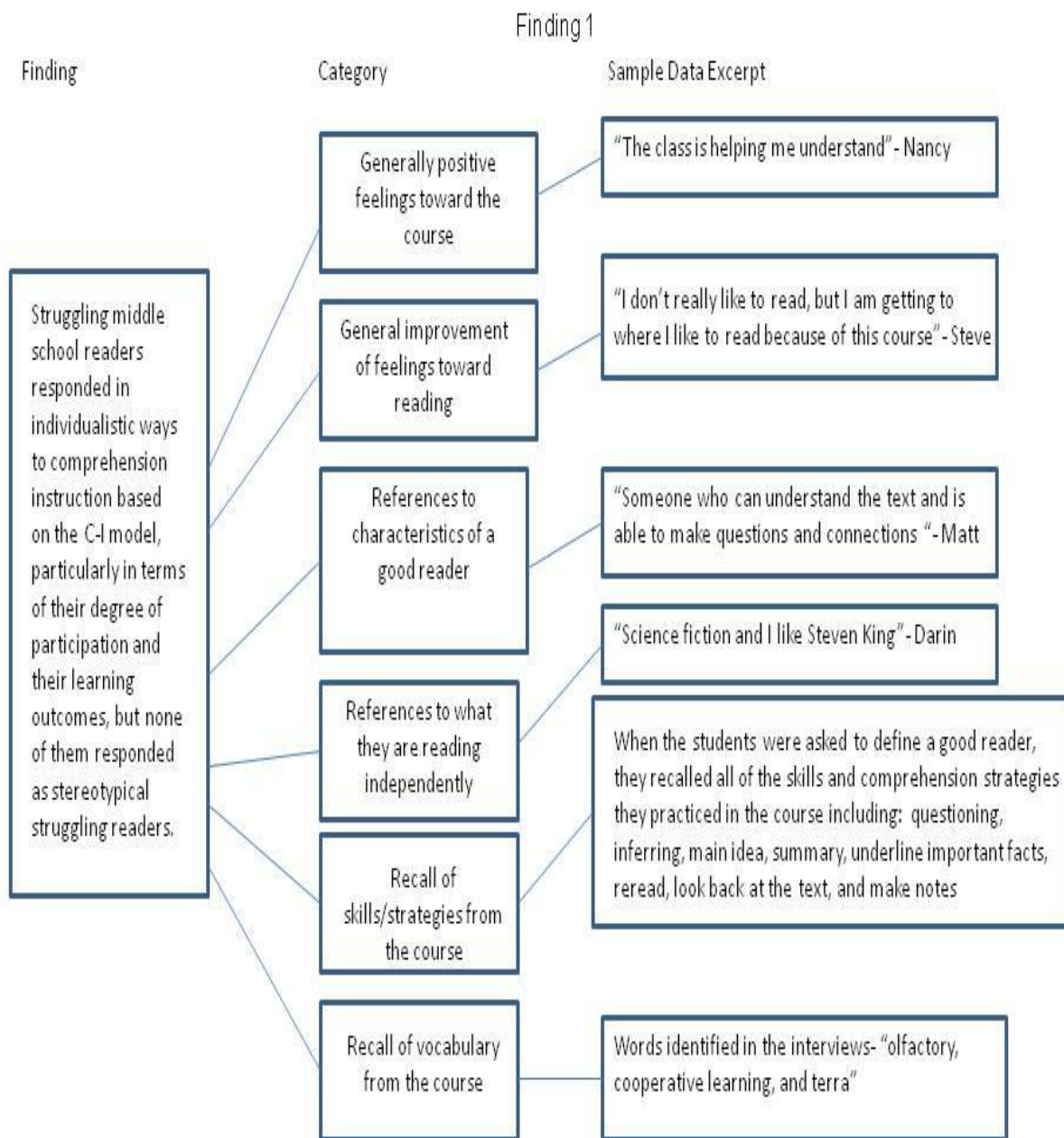
Finding 1

Finding   Category   Sample Data Excerpt

Generally positive feelings toward the course

"The class is helping me understand" - Nancy

Struggling middle school readers responded in individualistic ways to comprehension instruction based on the C-I model, particularly in terms of their degree of participation and their learning outcomes, but none of them responded as stereotypical struggling readers.

General improvement of feelings toward reading

"I don't really like to read, but I am getting to where I like to read because of this course" - Steve

References to characteristics of a good reader

"Someone who can understand the text and is able to make questions and connections "- Matt

"Science fiction and I like Steven King" - Darin

References to what they are reading independently

When the students were asked to define a good reader, they recalled all of the skills and comprehension strategies they practiced in the course including: questioning, inferring, main idea, summary, underline important facts, reread, look back at the text, and make notes

Recall of skills/strategies from the course

Recall of vocabulary from the course

Words identified in the interviews- "olfactory, cooperative learning, and terra"

Figure 2. Path that the qualitative data analysis took for reaching Finding 1 with the range of responses from all of the students.

much improved from the previous year, but once the unit was over he eventually was placed in an alternative school because of continued referrals by other teachers. Ms. Hughes never had to write a referral on him. Darin also received his first grade of A in middle school in this course, and he passed the TAKS state assessment with an 88, a huge improvement from the previous year's score of 54.

Eric, a Hispanic male, was enrolled as an English as a second language (ESL) student. The same teacher instructed him the year before, describing him as quiet but attentive. Eric was eager to share about his own dogs in class. He often participated in class, leading small group discussions. He encouraged his other group members to participate, but did not participate in whole class discussions unless called upon. He was the student who made everyone laugh with stories about his own dog. He was chosen to be interviewed because he was an English learner and because of his personal connections to the topic; his usual quietness in class; and his answers on the survey which indicated he liked to read, sometimes made intertextual connections when reading, but thought it was hard to make connections when reading. Eric was successful in the unit and improved his state assessment from a 58 to 72.

Lynn, a Caucasian female, began the class 2 weeks after it had begun. Upon her arrival, she seemed to think she did not belong in a "lower reading" class, but after 2 days of not being able to participate in the class discussions, she requested to take the text home so she could read what she had missed. After she caught up on the readings, she participated often in class and seemed to always have something to contribute without being prompted by the teacher. She shared stories of her own dogs and how she was applying what she was learning about dogs outside of school. She often

76

directed the class to "flip back" to text they had previously read to help make meaning of a new text. She was one of the first ones to flip back on her own and shared that with the class. She was chosen because of her participation in the class and her survey which indicated that she did not make intertextual connections easily, always understood a text better if she had read something on the topic before, and had read about dogs on her own since the class began. Lynn improved her state assessment from 62 to 73.

Matt, an Hispanic male, just finished the ESL program. He seemed to be overshadowed by many of the students in the class because he was so quiet. However, when he worked within a small group, he expressed his thoughts. Often times, his comments sparked the conversations in his group. He still struggled with his spoken English, but Matt was always willing to participate, just quietly. He was chosen because he was quiet in class; was ESL; and his survey which indicated that he found it easy to make connections, liked to read, and read about dogs on his own since the class began. Matt's state assessment scores improved from 56 to 75.

Nancy, an Hispanic ESL student, participated in the class and was often the first to respond to questions. My observations seemed to indicate that she was interested in the topic being read about, but I was surprised that on her survey, she indicated that she was not interested in reading the unit material. She specified that she aspired to be a politician and enjoyed reading about American and Mexican government. She received special accommodations for her learning disabilities including dyslexia. Following her interview, Nancy contacted me through her wiki space, which was an assignment to create a wiki space about a breed of dog, and asked if she could come

into the library and read during lunch. She came to the library every day for the rest of the year to read both *Newsweek* and *Time* magazines. She was chosen to be interviewed because of being ESL, her participation in class, her survey which indicated no interest in the topic, her rarely making intertextual connections when reading, and her lack of reading about dogs on her own. Nancy improved her state assessment from 63 to 92.

Nelly, a Caucasian female, initially did not participate in class unless chosen by the teacher, but progressively she began to volunteer to answer questions and participate in the discussions. She had many animals at home and shared information about them with the class. Nelly had been in trouble during the current and the previous school years because of her behavior and bullying of other students. Typically, she was friends with students who demonstrated poor attitudes toward school. She was chosen because she was typically quiet in her classes but not in this class, her personal connections, and her survey responses indicating she sometimes made intertextual connections when reading which made it easier for her to read and she did not like to read. Nelly's state assessment scores increased from 54 to 90.

Sam, a Caucasian male, contributed to the class discussions. He first chose a group to work with that consisted of his friends, but upon seeing that his group did not get much accomplished, he requested to change groups. His new group gave him a chance to discuss and get his assignments completed. Often times, I observed him leading the discussions and volunteering to read first in his group. He was chosen because he seemed to want to learn; his participation in the class; and his survey which indicated he found it easy to make connections, sometimes made intertextual

connections when reading, and believed making connections always made it easier to read. Sam did pass his state assessment the previous year with a 71 but improved his score to an 83.

Steve, a Caucasian male, talked in class often. Sometimes his talking was to participate in class or group discussions, but most of the time, he talked to visit with friends. Sometimes his contributions to the discussions were off-topic and distracting to the other students. He had the same teacher last year, and she stated "last year he had trouble completing and turning in assignments." Steve received special education services. He liked to talk about his dogs at home and aspired to become a vet. He was chosen because he was easily distractible, participated often in class, and his survey indicated he thought making intertextual connections when reading always made it easier, he sometimes made connections in his content area classes, and he did not want to read about dogs outside of class. Steve improved his state assessment from a 54 to 75.

All students identified as ESL students were advanced or advanced high level English users, meaning the students participated in class with little to no help from the teacher on vocabulary and their confidence level was increasing. They had earned their way out of a separate class for ESL students. All were in a separate class for ESL in their sixth grade year. They also took on-level TAKS tests in English.

Overall, these descriptions of the focus students were typical in that eventually all students participated in the class discussions, made personal and intertextual connections, and were successful on the state assessment. While they shared these similarities, they were individualistic in the amount of participation and the point at which

they began to participate in the class. Some were chosen when they were not participating often, but by the end of the unit, they were actively participating. Some were chosen due to their interest or lack of interest on the topic being read; their gender, their learning disabilities, or their language barriers, and their behavior in class. By choosing students who represented the above characteristics, the focus students were considered representative of all of the students in the class.

<div align="center">Not Stereotypical Struggling Reader Responses</div>

The students in this study were enrolled in this course because they were classified as struggling readers based on their standardized test scores from the previous year, but while engaged in this unit, they did not show the stereotypical characteristics of a struggling reader. According to Boardman et al. (2008), struggling readers may not enjoy reading, may not be interested in reading about a topic outside the classroom, and may not choose to read challenging texts. The following description identified the students' feelings toward reading, what they believed the characteristics of a good reader included, and what the students were reading or liked to read.

Typically, struggling readers are viewed as not liking to read, but when the focus students were asked "Do you like reading?" 5 out of 8 students responded that they liked or loved reading. Some of the students indicated that they were, like Eric said, "getting where I like to read [because of this unit]." Darin stated that he "likes reading, but only my type." Others, like Lynn, stated that they did not like to read aloud or that they "get embarrassed to read aloud because sometimes I do not get the words." Three out of the 8 students interviewed said that they did not like reading, but Matt said he "does not like reading, but likes reading about this topic [of dogs]." When asked "Do you

think you are a good reader?" only Nancy responded with thinking of herself as a good reader. Eric thought he was "a little bit of a good reader," because "sometimes reading can be confusing, and I don't spend a lot of time reading." The remaining six focus students stated that they did not think of themselves as good readers.

The struggling readers in this study described what they believed to be a good reader in their interviews. Their descriptions included methods of reading, skills of reading, and actions of a reader. When the students were asked to "define a good reader," most students responded by stating the method of reading. Nancy said she thought "a good reader reads aloud." No students identified a good reader as one who reads silently, but their focus was on how a reader sounded when they read aloud. According to the students, when a good reader reads aloud, they "sound words out," can "read all the words," "read words really good," and "read with emotion."

The struggling readers also identified the skills that make a good reader when they defined a good reader. Most of the skills identified were the same skills and comprehension strategies practiced in the unit. According to the students, skills of good readers included "using a highlighter," "handling vocabulary," questioning the text, making connections, making inferences, and "jotting things down in the margin." In addition to just identifying the skill and comprehension strategies a good reader uses, one student, Nancy, stated that a good reader is "someone who can understand the text." Nancy did not identify any skills or strategies or the medium through which the reading is done. Interestingly, some students related actions of a reader to being a good reader. For example, according to Darin and Nelly, good readers "like to read a lot of books," and Darin went further saying that a good reader "spends more time reading

81

than on video games." Additionally, the struggling readers were able to recall vocabulary from the text and able to use the vocabulary words. For example, Lynn used the word "olfactory" repeatedly after they read a text in which the word was defined. Often times, when reading later texts, she used this word to help make meaning of the new text. When the students were reading "Characteristics of a Puppy," the students were asked to identify the characteristics of different breeds, Lynn shared with the class that "the blood hounds must have a better olfactory than other dogs since they are used to sniff out [*sic*] people and things." During a classroom discussion, Darin shared with the class that he and his mother were looking for a mouse in their garage over the weekend. He said, "I told my mom we should get the dog because he has extra olfactory."

Not only did the students identify their feelings toward reading and what they believed the characteristics of a good reader include, but they also identified what they were reading or have read. Their responses were divided into genre or subgenre and medium, which was the format of text. These struggling readers read mysteries, history, science fiction, sports, politics and government, drama, adventures, and fantasy. Within these genres and subgenres *Twilight*, *Wannabees*, and *Dragon Keeper* were titles specifically identified. Stephen King was specifically identified as an author they chose to read. When the students expressed their preferred medium, they read books, magazines, newspapers, and the Internet. In the context of instruction based on the C-I model of comprehension, the struggling middle school readers did not appear to function as stereotypical struggling readers. Rather, they enjoyed reading for pleasure outside of class as well as being able to identify the qualities of a proficient reader.

Finding 2: Students Variety of Connections, Talk About Their Connections, and Confidence About Making Connections

In response to the second research question, the data analysis clearly showed that in the context of instruction based on the C-I model of comprehension, students learned (a) to make a variety of connections, (b) to talk about their connections, and (c) to feel more confident about making those connections. Figure 3 demonstrates how this finding was determined through the qualitative data analysis.

Data from the surveys, classroom observations, and student interviews demonstrated students were learning about intertextual connections. Some of the students did not find it hard to make connections as 14 of the 26 students surveyed in Week 5 responded that they found it easy to make connections when they read (see Appendix C, Question 1). Surveyed students (16 out of 26) responded with the answer "sometimes" for three specific cases: (1) making connections when they read made it easier to understand what they were reading (see Appendix C, Question 7); (2) making intertextual connections when they read (see Appendix C, Questions 2-4); (3) understanding a text better when they had already read something on the same topic.

In interviews with the eight focus students, all reported what they were learning about in relation to making connections. The students' interview responses indicated they understood "how to make intertextual connections" (Nancy) and that "making intertextual connections was easy" (Matt). The responses on both the interviews and surveys suggested making connections was something these students had not learned before, but in some responses they expressed they understood how to do this already. The students, like Matt, who stated they already knew how to make connections said, "I learned it from Mrs. Douglas in seventh grade." However, one student, Eric, failed to

realize he had learned about connections until the interview when he said, "I never thought about that, but yeah, I am learning about it."

Finding 2

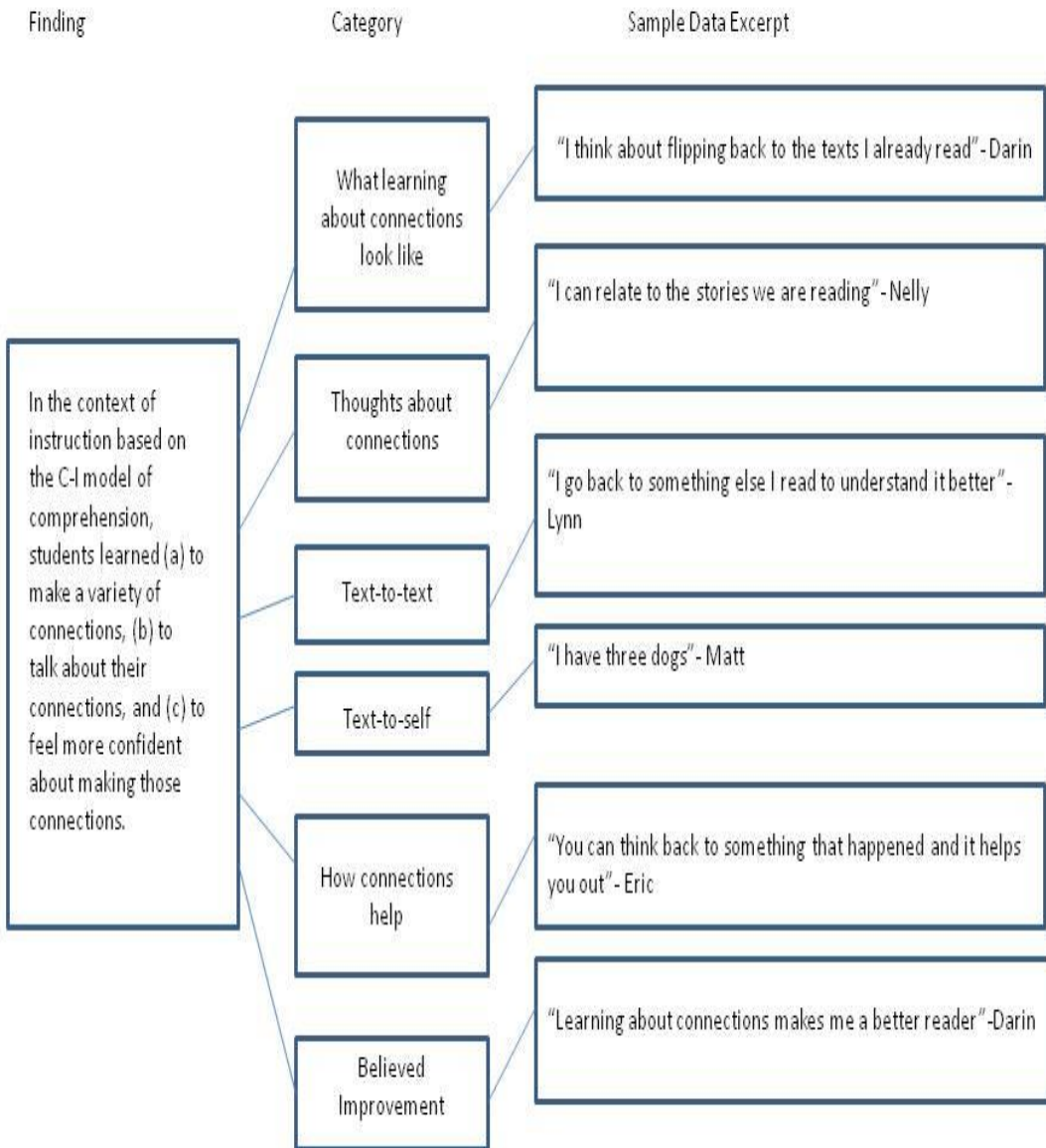| Finding	Category	Sample Data Excerpt
In the context of instruction based on the C-I model of comprehension, students learned (a) to make a variety of connections, (b) to talk about their connections, and (c) to feel more confident about making those connections.	What learning about connections look like	"I think about flipping back to the texts I already read"- Darin
	Thoughts about connections	"I can relate to the stories we are reading"- Nelly
	Text-to-text	"I go back to something else I read to understand it better"- Lynn
	Text-to-self	"I have three dogs"- Matt
	How connections help	"You can think back to something that happened and it helps you out"- Eric
	Believed Improvement	"Learning about connections makes me a better reader"-Darin

Figure 3. Path that the qualitative data analysis took for reaching Finding 2 with the range of responses from all of the students.

The classroom observations made the connections come to life because in the field notes, it became evident students made connections often. The observations took place for 90 minutes (45 minutes per class period) daily for 12 weeks, approximating 90 hours. The observations yielded data to demonstrate the kind of connections, including text-to-self or personal, text-to-text or intertextual, and text-to-world, the students made while reading topically-related texts.

Text-to-Self or Personal Connections Decreased as Text-to-Text or Intertextual Connections Increased

Through my classroom observations, I noted the following: As the students progressed through the unit, their text-to-text or intertextual connections increased as their text-to-self or personal connections decreased (see Table 4). In fact, during the first 3 weeks, they made 55 text-to-self connections and during the remaining 6 weeks the students made only 16 text-to-self connections. Basically, at the beginning of the unit the discussions were comprised of the students' own text-to-self connections. For example, they talked about their own dogs and their experiences as they related to the text. A large amount of the text-to-self connections took place while reading the first text "Beulah" about a dog who visits a spa. For example, Darin made a text-to-self connection when he told the class about his dog, an Akita, and how he let his dog "sleep in the bed with him," as an example of how he pampered his dog like Beulah was pampered. Darin also discussed how his "uncle buys his dog clothes" as another illustration of pampering. Mrs. Hughes modeled text-to-self connections by talking about taking her own dog to the doggie bakery as her example of pampering a dog (which the students thought was hilarious based on their laughter). Eric made a text-to-self

connection when the students were reading about Beulah. He stated that his sister "put clothes on his dog like Beulah."

During Week 3, while reading "Designer Mutts," Steve got excited and told about his Chuweenie, whom he "never thought about being a designer mutt." While reading "From Big Bad Wolf to Man's Best Friend," a text about the adaptation and changes in dogs over time, Sam talked about how he used his dogs "to hunt with, not friends," because the text presented ideas that dogs have become more of companions than used for sport.

As the students read more articles and discussed the text more, they began to make text-to-text or intertextual connections to the previously read articles. In fact, during the first 3 weeks, the students only made 14 text-to-text connections, but in the remaining 6 weeks, they made 112 text-to-text connections. Often, the teacher modeled a think aloud where she talked about how she made meaning of the current text by going back and referencing information found in previous texts. She asked the students to recall information from previous texts in order to comprehend a new text. Many times the teacher would ask the students to physically "flip back" in their text to an article that helped them understand the new article. For example, when the students were reading "In the Beginning," a text about the history of dogs, during Week 3, the teacher asked the students how they knew about dogs in the Stone Age. She prompted the students to go back to the texts they had already read to find the answers. The students turned back and eventually found the answer in "The Adaptable Coyote," where they read about how coyotes have adapted to people taking over their habitats.

Eventually, the students made intertextual connections on their own during Weeks 5 through 10, often referencing texts like "The Adaptable Coyote," "In the Beginning," and the matrix of dog characteristics they made from the texts. The assistant principal came in during Week 10 to observe Mrs. Hughes. As the lesson began, the students started to recall what they read about in the lesson before, "Selecting the Right Puppy by Its Characteristics," which prompted the assistant principal to say, "This is very interesting! I have been thinking about getting a dog." Darin immediately said, "We can help you find the right one, but you have to answer some questions."

The students began to discuss with each other regarding what they would ask her first. Remi suggested to the other students, "turn to the chart on dog breeds and start at the beginning." The students talked about why the coat of a dog would be important.

Eric suggested the coat is important because "if she does not want to clean up the hair she won't want a thick or long haired dog." The principal told the students, "Exactly! I wear black a lot, and I would have to brush my clothes before coming to school."

Nelly asked her, "Do you have any kids and how old?" The principal responded by telling them: "I don't and I am not home a lot so I need one that is ok with that." The students turned back to the "profiles of dog owners" activity they completed to read the profiles of the owners in order to compare that information to her life. The teacher directed the students to talk among themselves at their tables to decide on their choice of dog for the assistant principal.

This conversation with the principal is an excellent illustration of the students using text-to-text or intertextual connections while creating meaning and building knowledge, as the students had to reference several pieces of text to reach a conclusion about which dog was best for her. Other text-to-text connections included Darin connecting to *My Brother Sam is Dead*, a novel the students were reading in English class; the students referring back to the timeline text when recalling what dogs do to help humans; Lynn using her chart of dog characteristics to help her uncle choose a dog; and when they read "Designer Mutts," Remi made a connection to another text about choosing a dog by its characteristics.

Students Made Less Frequent Text-to-World Connections

Finally, the students made text-to-world connections. The number of text-to-world connections was considerably lower than the other kinds of connections. Over the 10 weeks, only 25 text-to-world connections were made. For example, Nelly talked about the first text seeming like a "person spa" when the activities Beulah, the dog in the text, was engaged in were referenced.

Table 4

Connections Timeline and Frequency Count

Date	Text-to-self	Text-to-text	Text-to-world
20-Oct	10		1
21-Oct	5		
22-Oct	4		1
23-Oct	1	2	6
24-Oct	3	1	
27-Oct	3		1
28-Oct	1		2
29-Oct	3		
30-Oct	6		1
31-Oct	2		1
3-Nov	2		
4-Nov	5	3	1
5-Nov	1	1	2
6-Nov	8	3	3
7-Nov	1	4	
3 weeks	55	14	19
10-Nov		3	
11-Nov	1	2	
12-Nov	2	1	
13-Nov	1	2	
14-Nov		6	
17-Nov		2	
18-Nov	1	4	
19-Nov		5	
20-Nov		10	2
21-Nov		6	
1-Dec		4	
2-Dec		2	
3-Dec	1	2	2
4-Dec		3	
5-Dec	1	9	
2nd 3 weeks	7	61	4
8-Dec		8	
9-Dec		4	1
10-Dec		1	1
11-Dec		5	
12-Dec		5	
15-Dec	1	2	
16-Dec	1	6	
17-Dec		5	
6-Jan	1	6	
7-Jan		4	
8-Jan	1		
9-Jan		2	
3rd 3 weeks	4	48	2
12-Jan	1		
13-Jan	4	3	
Totals	71	126	25

Students also demonstrated text-to-world connections when they discussed celebrities' dogs, movies, cartoons, and television shows with dogs and coyotes. Nancy made the connection to how celebrities treat their dogs like children when reading "How Did Dogs Become Adept to Playing to Humans" by saying, "Paris Hilton carries her dog around in her purse like a baby." Jose made a text-to-world connection when reading "U.S. Beagle Brigade" by saying, "Dogs can smell really good, so they used them in Katrina to look for victims. I saw that on TV." Freddy told the class about how the Ewoks in Star Wars were patterned after Shit-zu dogs which was something he learned by "watching the director's notes at the end of the movie." Freddy's quote represents an excellent example of a text-to-world connection because the text made him connect to a movie in his world. In this case, the movie was Star Wars.

Students Could Talk About What They Learned About Connections

The student interviews demonstrated how the students thought they were learning about making intertextual connections. In their interviews, the students were asked, "what have you learned about in this unit?" and "how has making intertextual connections made it easier to understand the text?" They made responses in terms of types of connections. The text-to-text connections included Darin saying he was "learning to use multiple pieces of texts," Lynn responding that she would "look up if the facts are right in a different story," and several students "flipping" back to previously read texts. Lynn compared the text she had already read "to the one you are reading now, and it makes more sense to you." Nelly said, "I can think back to what I read before." While referring to making intertextual connections, Sam said, "We do it every day," and Nancy admitted to "learning about linking pieces of texts." One student

identified a text-to-world connection when identifying what he was learning about in the unit. Eric said, "I am learning about text-to-world" and "how the news relates to the text, because a coyote was just seen in the neighborhood."

Generally, the students did not identify their learning about connections in terms of text-to-self connections as often as other types of connections in their interviews. Students stated they had dogs. Matt admitted they "talk a lot about the stories we read and our lives."

Other comments about what they were learning about making connections in relation to text-to-self connections included the following quotes. Matt said they "talk a lot about the stories we read and our lives." Nancy learned to "put yourself inside the story and think you are the person who owns the dog." Lynn also stated, "I never thought my stories about dogs could help me understand school better." The remainder of the responses encompassed them recalling stories they told in class or that others told in class but were not direct statements about what they were learning about making connections.

The students were asked, "How has making intertextual connections made it easier to understand the text?" All eight students interviewed indicated making connections made reading easier. They provided various reasons for how connections helped them read including helping them understand better (i.e., comprehension), "relate to it" as Eric said, "relate it to real life" as Nancy and Darin agreed, and "organize information better" as Matt and Steve reported.

Students' Self-Confidence Increased

In addition to learning about making intertextual connections, this instruction based on the C-I model of comprehension enabled the students to gain self-confidence as readers. During the classroom discussions, the student's self-confidence grew based on their participation in the class. At first Dylan and Nelly did not participate in any whole group or small group discussions or reading aloud to the class. They did appear to read silently when given the opportunity and turned their assignments in on time. The teacher informed me that they were generally quiet and kept to themselves and were not confident enough to read aloud. As the unit progressed and they understood more about dogs, they began to participate first in the small group discussions and then in the large group discussions. By the end of the class, both students were among the first to volunteer to read aloud and practically lead the discussions. It was not that they were necessarily better readers, but they had gained the confidence to read aloud even when the vocabulary in an article was difficult.

Lynn stated in her interview that she would have not tried reading *Twilight* if it were not for this unit. She said, "The book was HUGE, and I did not think I could read it, but I feel like I can now." Her confidence grew as she progressed and she began to believe she could read longer and more advanced books.

Summary of Finding 2

To summarize, the data suggested the following for this finding:

- These students made less frequent text-to-world connections than other connections.

- Students could talk about what they learned about connections.

- Students' self-confidence increased.

- Text-to-self connections decreased as text-to-text connections increased.

Finding 3: Interest and Discussion

In response to the third research question, the data analysis clearly showed that students made connections when they were interested in the topic they read about and when engaged in discussion with others about the text. Figure 4 demonstrates the path the qualitative data analysis took to reach this finding.

Student Interests Triggered Connections

When readers are interested in a topic, it is easier to read about that topic (Guthrie, Alao, & Rinehart, 1997); however, this finding was more specific in this study: students made connections when they were interested in the topic being read. It was evident the students in this study were interested in the topic they were reading. When the students were surveyed, 22 out of 26 of them answered "yes" to being interested in the topic they were reading (see Appendix C, Question 11). The most obvious indicator of students' interest in the reading topic was their actions after they finished doing the assignment for the day. When any students finished early, they would beg the teacher to allow Internet privileges to look up information on dogs' adaptation, since the classroom had six computers.
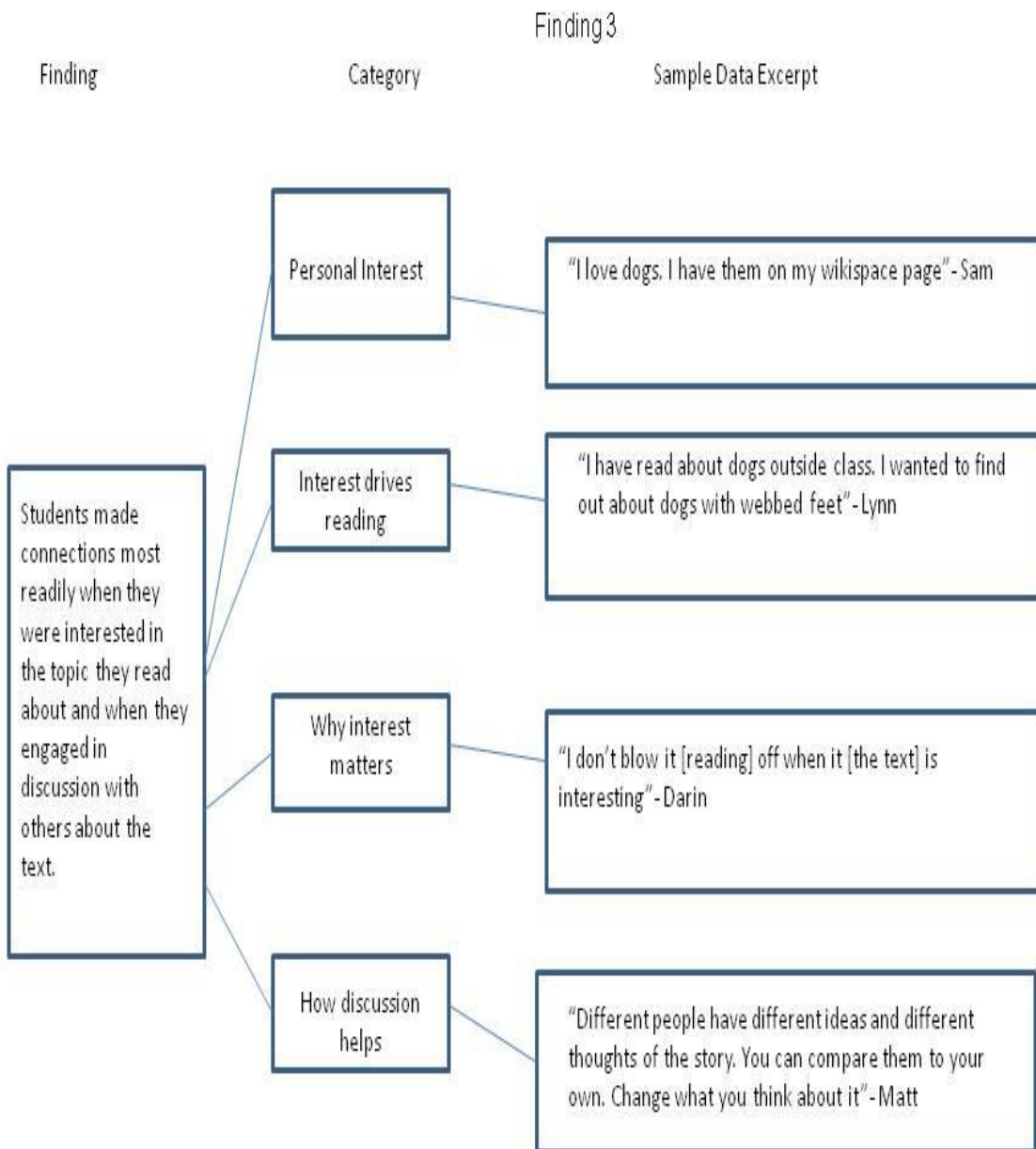
Finding 3

Finding	Category	Sample Data Excerpt

Personal Interest

"I love dogs. I have them on my wikispace page" - Sam

Interest drives reading

"I have read about dogs outside class. I wanted to find out about dogs with webbed feet" - Lynn

Students made connections most readily when they were interested in the topic they read about and when they engaged in discussion with others about the text.

Why interest matters

"I don't blow it [reading] off when it [the text] is interesting" - Darin

How discussion helps

"Different people have different ideas and different thoughts of the story. You can compare them to your own. Change what you think about it" - Matt

Figure 4. Path that the qualitative data analysis took for reaching Finding 3 with the range of responses from all of the students.

One day after reading "Selecting the Right Puppy by its Characteristics," a text identifying the characteristics of dogs, Darin, who always finished early, began looking up information about Akita characteristics. He owned an Akita and they were not a dog mentioned in the text. He shared with the class that his dog was the perfect dog for him because Akitas "are natural guard dogs," and they "are very possessive of their food, just like me!" The original text from the unit interested him enough to want to find another text, in this case a web site, to find out more information which showed him making text-to-text or intertextual and text-to-self or personal connections. His interest in the text motivated him to read more about it online, and that additional online reading created a way for him to make intertextual connections. In his case the connections were to the original text and the internet site as well as connections to himself as someone who is "very possessive of [his] food." Another time after reading "Designer Mutts," a text about breeding dogs for specific characteristic purposes, Eric found a website allowing him to create a virtual designer mutt by entering the two breeds and getting a graphic produced by the web site to illustrate what that designer mutt could look like. This action represented his making a text-to-text intertextual connection. He was interested in the topic of designer mutts and how people breed dogs to get offspring that have desirable characteristics, so he read more about the topic on the internet. That interest prompted him to read more and find the virtual designer mutt website. The information he gained from the website (which also included a text describing his designer mutt) was the basis of the connection to the original text read in class. All of the students ended up enjoying this site throughout the unit. Overall, the students participated and were engaged in the class activities, readings, and

95

discussions, which indicated their interest in the unit and created a way for them to make more connections.

The texts in this unit surrounded the topic of dogs and more specifically the adaptation of dogs. The struggling readers were instantly interested as they enjoyed telling each other about their own dogs. Their interest was evident through wanting to read and learn more about dogs by reading ahead in the unit. For example, on my third day in the class, while the students were just beginning to discuss "The Adaptable Coyote," Steve flipped ahead in the book to find out what articles were to come. Initially, I thought he was just off-task until he turned to me and asked, "Can dogs really smell cancer?" because he had read the title of an article to be covered later in the unit. I responded by telling him, "You will have to wait and see." He said, "No, I can't wait! I will just read it now!" Steve was not the only student who was "caught" reading ahead in the unit.

While reading "From Big Bad Wolf to Man's Best Friend," Alonzo stated that dogs "saved over 10,000 lives in the Vietnam war because they were used by the military to sniff out bombs." When the teacher asked him how he knew that fact, he stated that he had read ahead and learned it in "Dogs of War." Many students immediately started flipping in their books to see what articles were ahead, and some of them showed others the articles they found interesting. Alonzo's interest in the texts caused him to read ahead and made it possible to make a text-to-text connection. Nelly, after spending some time flipping through the book one day asked the teacher, "What is a designer mutt?" because it was the title of a text in the book.

In the interviews, the eight focus students discussed interest in many ways: they identified personal interests; they showed interests that drive reading; and they indicated why interest matters when reading. With dogs as the subject of the related texts the students read, when students discussed why they liked the unit, all but one student identified his or her interest in dogs. Responses demonstrating their interest in dogs were Lynn's "I love dogs . . . dogs are my life," Darin's "I know a lot about dogs," Nelly's "I have three dogs at home," and Steve's "I want be a vet when I grow up, so I need to know this stuff." Additionally, the students used pictures of their own dogs on their wiki space, which was an assignment to create a wiki space about a breed of dog, to depict their personal interest in dogs. For example, one student wanted to create a Wiki space about mixed breed dogs and included his Chuweenie, a cross between a Chihuahua and a Dachshund.

Many of their responses on the survey (e.g., Appendix C, Question 12) indicated that students' personal interests drove them to read. Several of the students in class identified they were reading about dogs outside of class. Sam had a question about dogs that have webbed feet and searched the Internet for information about those types of dogs. Another student, Lynn, read about "what dogs need and what kind of exercise they need" outside of class. Additionally, most students stated they enjoyed reading about dogs and enjoyed the class because of their interest in dogs. One student, Nelly, indicated she had not read about dogs outside of class before the unit but had gained interest in reading about them now. Darin often finished his work early and wanted to read more information about dogs on the Internet, and once he even found a personality test for dogs. The students were asked by the teacher to find more information about

the American Kennel Club, and the students ran for the computers to be the first to find the information.

Lynn entered the class and was behind by two texts. After only three lessons, she asked if she could take the book home to read the texts she missed. She wanted to engage in the discussions on a deeper level than her own connections so she was prompted to want to read the previously covered texts. Steve and Alex read ahead in the book. They looked at the articles and asked me questions like, "Can dogs really smell cancer?" I responded by telling them that they would have to wait and find out. Steve said, "I bet they can. I will just read it."

Students were asked in their interviews, "When you are interested in a subject do you think it is easier to read something about that subject?" According to the students, when they were interested in a topic they were reading about, they "don't blow it off" as Darin said, "pay attention better" as Matt reported, it "pulls you in and you can focus more on it" as Nancy said, and it "grabs your attention better" according to Sam. Essentially, interest mattered because the material held their attention enough to read about it. Interest also mattered because the students thought it was easier to read when interested, and Lynn believed she was "getting to where I like to read because of this unit."

The students were interested in the topic they were reading about (dogs) and read ahead as well as read outside the scope of the texts in the course. The additional reading gave the students opportunities to make additional personal and intertextual connections.

Discussion Supported Students Making Connections

Interest was a condition in which struggling middle school students make connections, but discussion aided the process of making connections. Previous researchers demonstrated when students are provided with opportunities to discuss texts, they make intertextual connections (Bloome & Robertson-Egar, 1993; Harris et al., 1997; Lenski, 2001; Short, 1991). This study extended on the findings from other research by identifying what the students said about discussion aiding them in making connections. A large part of the classroom instruction involved whole class and small group discussions. Often those discussions enabled the students to verbalize their connections. The students were asked in their interviews if or how they thought the discussions helped them to make connections and read. They identified how discussions helped them to make both personal connections or text-to-self and intertextual connections or text-to-text and to understand a text better. In the interviews, students claimed that discussions helped them make personal connections because they listened to other students' connections and recalled connections of their own. For example, Matt indicated he could "relate to their connections a little." Sam said, "You hear other people's discussion and make connections and share a story too," and Eric found hearing other's connections "reminds you of your own connections."

Focus students stated in their interviews that they were reminded of the texts they previously read in the unit by their classmates' discussion of the text. They "saw someone flip back in their text to previous readings," as Lynn said, and the activity reminded them to do the same. Discussion helped students understand the text better. Darin got "advice from different people and put that all together and get one main thing." Steve was able to "compare their thoughts to your own." Matt could "get more

99

information" from others in the group than what he already knew. Overall, all eight students interviewed stated that having discussions helped them to understand the text better, and four of the students talked about how the discussion changed their understanding of the text.

This finding suggested two highly influential conditions that support middle school students in making connections: (a) when students are interested in the topic read and (b) when they are given opportunities to discuss the readings. The students in the study were interested in what they were reading and made connections. They stated that discussion helped them make connections.

<div align="center">Summary of Finding 3</div>

In response to the research question about what conditions invite or support connections, the data suggested the following for this finding:

- Student interest triggered connections.

- Discussion supported students making connections.

Finding 4: Connections in Content Area Classes Other than English Language Arts

In response to the fourth research question, the data analysis clearly showed that students sometimes made connections in content area classes other than English language arts when given the opportunity in those classes. Figure 5 depicts the process of the qualitative data analysis that led to this finding.

Finding 4

Finding	Category	Sample Data Excerpt
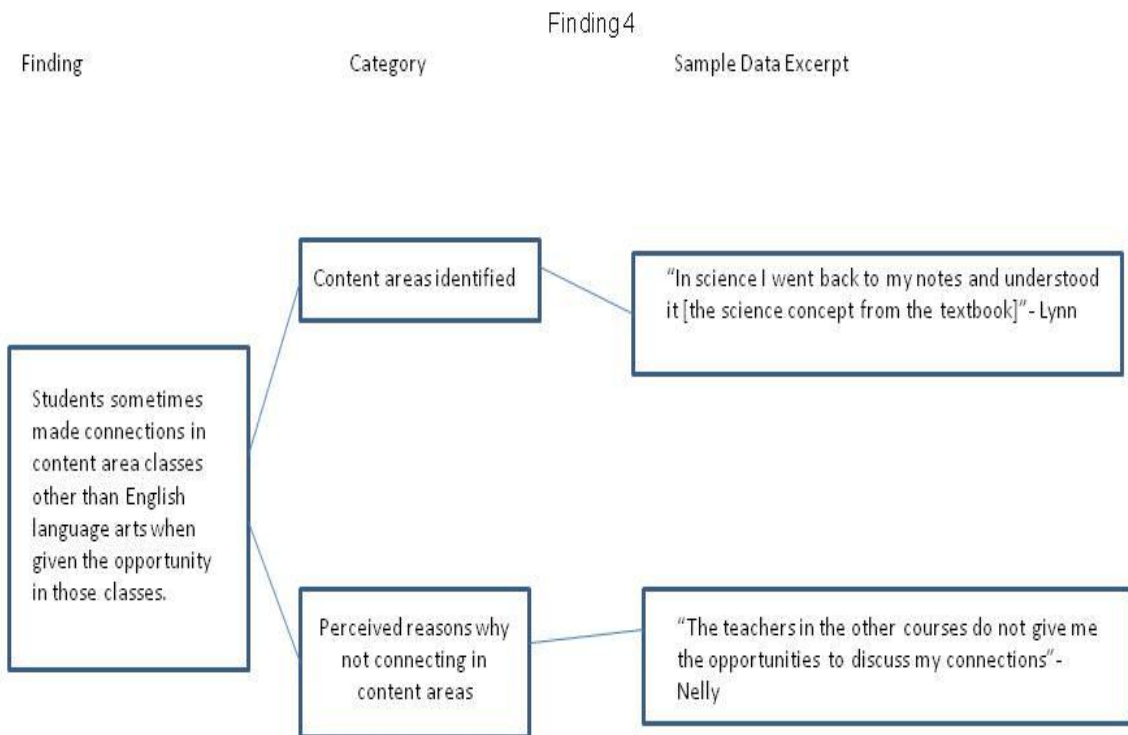
Figure 5. Path that the qualitative data analysis took for reaching Finding 4 with the range of responses from all of the students.

The students were asked on the survey if they made connections when they read in content area classes other than English language arts. Of the 26 students surveyed, 14 indicated they sometimes made connections in their content areas classes, and 15 of them indicated they sometimes were given opportunities to discuss the connections they made in the other content area classes.

When the eight students were interviewed about this same topic, six of the students identified at least one content area in which connections were made. Six codes were history, three codes involved science, and one code indicated math. Some students could identify in their interviews specific examples of connections they made in these classes. These examples included the following: for Steve, "World War II and remembering my grandpa"; for Nancy, "we were learning about the Boston Tea Party"; for Darin, "I remembered when I visited Boston"; and for Steve, "we are learning about conduction, convection, and radiation in science… the water was like the heat waves I see over a hot car's hood." Of the students who responded in the interviews that they made connections in a content area class, they all talked about having made connections to either an activity (e.g., science experiment with the heat waves) or through a lecture/teacher think aloud (i.e., Sam). In fact, two students stated they did not make connections when they read in those classes, but they talked about how they made connections in the classes in relation to a teacher's modeling his own connections during lecture. The fact that they recognized their teachers' behavior of making connections in their think aloud was important by demonstrating the students' understanding of making connections. According to Darin, the history teacher modeled his own connections and "gave an example of George Washington being the first one to admit his mistakes and now Bush was doing it." While most students interviewed discussed connections that were either made by themselves or the teacher in content areas, Nelly said, "I don't really make connections in classes other than reading."

The students were asked why they believed they did not make connections when they read in the content area classes. Overall, their responses indicated the lack of

opportunity to discuss connections; their "teachers' not asking them questions," as Nelly said, about their connections; and their teachers not giving them a chance to "flip back to information" previously read, according to Lynn and Nancy.

Summary of Findings

The struggling middle school readers in this study demonstrated active participation and success in the course. They did not exhibit characteristics stereotypical of struggling readers but exhibited behaviors of proficient readers such as participating in the classroom discussions, leading their own discussions, and enjoying reading. This type of instruction enabled the students to learn how to make various connections since the instruction was aligned around a topically related text. Students made intertextual connections when they were interested in the topic about which they were reading and when they were given the opportunity to discuss the text with each other. Finally, the students stated they sometimes made intertextual connections in content area classes other than English language arts, when they were given the opportunity. The findings are discussed in Chapter 5 along with implications for theory, research, and practice.

CHAPTER 5

SUMMARY, DISCUSSION, RECOMMENDATIONS

Summary

This study explored the intertextual connections struggling middle school readers made as they read multiple topically-related texts to build knowledge. The following were the four research questions regarding eight middle school students who were struggling in their reading:

1. How do the students generally function in the context of comprehension instruction based on the construction-integration model of comprehension?

2. Are they learning to make intertextual connections in the context of this instructional approach and if yes, how so?

3. What conditions contribute to their making intertextual connections?

4. What do they say about whether or how they are making intertextual connections in content area classes other than English language arts?

The review of research literature revealed that "when readers read across texts, the reader's understanding and response transcends that of any single passage" (Hartman & Hartman, 1993). In other words, when readers read, they draw upon multiple texts in order to make meaning. Readers make connections that are located in the text, between texts, and outside the texts (Hartman, 1995), and they make connections when they have the opportunities to discuss (e.g., Short, 1991) and in their writing (e.g., Spivey, 1984).

This study was designed to extend previous research in several ways: to provide knowledge about how struggling readers make connections; to investigate how to

encourage students to make connections; to investigate conditions that contribute to students making connections; and to document what students say about if or how they are making connections in content areas other than English language arts to construct meaning. The focus on participants designated by the school as struggling readers differs from previous research which had been focused on proficient readers and multi-level readers representing different levels of readers within one classroom (Bloome & Robertson-Egar, 1993; Cairney, 1989; 1990; Harris, 1997; Hartman, 1992; 1995; Lenski, 2001; Rowe, 1986; Short, 1991). No research was found to study directly students' making connections in content area classes. Nonetheless the majority of the research had been conducted using multiple genres including non-fiction which is often read in content area classes. Additionally, no research was identified that explored the perceptions of students regarding whether learning about connecting texts improves their reading and thinking.

This study was a descriptive investigation of struggling readers making connections while reading and topically-related texts and qualitative techniques were employed for data collection and analysis. The site for the data collection was a middle school reading classroom in which the text and instructional plan were based on the C-I model of comprehension (Kintsch & van Dijk, 1978; Kintsch, 1988, 1998, 2004). The students were observed for 12 weeks while they discussed the topically-related texts. They were surveyed in Week 5, and the data were examined for emerging variations between the students. The maximum variation sample (Patton, 2002) then yielded some information-rich cases. These cases were used to investigate the phenomenon further

by focusing my observations on these cases of focus students and interviewing the focus students as cases.

Discussion of the Findings

Chapter 4 presented the four major findings that emerged in response to the four research questions. Most of these findings were consistent with published research; however, these findings contributed a more detailed understanding about the potential for middle school students to make connections as they read topically-related texts.

Finding 1: Individualistic and Non-Stereotypical Responses

In response to the first research question, the data analysis clearly showed that these students responded in individualistic ways to comprehension instruction based on the C-I model, particularly in terms of participation and their learner outcomes but that none of them responded as stereotypical struggling readers who are disengaged, passive, and disruptive. One way the students responded individually was based on their participation in the class. For example, Darin, who typically did not participate and disrupted class regularly, oftentimes led the class discussion and was the first to contribute ideas for discussion. His behavior problems subsided while he was engaged in the unit. This indicated that his participation and engagement in the class kept his attention on the content and class activities versus disrupting the class with his behavior. Other students like Matt were more reserved at the beginning of the course, as he would not talk much in the whole group discussion, but later Matt participated in his small group discussions by sharing his connections between texts and personal connections. The participation level and changes in that level over the course were

unique to each student. Some participated and were engaged from the first day and others participated more as the course progressed.

Additionally, each student had different student outcomes and reading improvement, judged by the comparison of their standardized scores from their seventh grade year to their eighth grade year. While each student's academic outcome varied, all focus students improved their overall score from seventh to eighth grade and passed the state standardized test. In fact, three of the focus students scored above an 88 on the state assessment, for which 70 was a passing score. None of these students was required to enroll in a reading improvement course the following year.

Also, the students as a whole did not respond to the instruction as typical struggling readers. The students were asked many questions in their interviews that not only helped to identify what they were learning about in terms of making connections, but also that helped describe them as readers. Several of the interviewed students stated they "liked" or "loved" reading, and one student stated that because of the unit, he was "getting to where he liked to read." Another student said he "does not like reading, but likes reading about this topic [dogs]". One student even stated he "likes reading, but only my type." His type was horror books like Stephen King's books. These same students indicated what they were reading or had read. Their responses ranged from identifying specific titles (including *Twilight*, *Wannabees*, and *Dragon Keeper*) and authors (e.g., Stephen King) to topics they liked to read about (i.e., mysteries, history, science fiction, sports, politics and government, drama, adventures, and fantasy) to the medium through which they read (e.g., books, magazines, newspapers, and Internet). These students were enrolled in the course because their standardized test scores

107

indicated they were struggling readers, but they demonstrated they liked reading, read books that were not assigned in school, and could identify they type of texts as well as the topics they liked reading about. The implication is that, in this context, these students were able to engage in the readings, connect with personal interests, and feel confident and informed enough to talk about particular authors and genre. That is certainly not the generally held stereotype for "struggling" middle-school readers.

Finding 2: Students Variety of Connections, Talk About Their Connections, and Confidence About Making Connections

In response to the second research question, the data analysis clearly showed that in the context of instruction based on the C-I model of comprehension, students learned (a) to make a variety of connections, (b) to talk about their connections, and (c) to feel more confident about making those connections. Instruction based on topically-related texts, teacher modeling, and think-alouds provide an environment for students to make connections. The students made a variety of connections--text-to-text, text-to-self, text-to-world--when reading topically-related texts. The students' type of connection changed over time. Educators can expect students to make more text-to-self connections at the beginning of reading topically-related text. Teachers can anticipate that as the students read more of the topically-related text, an increase in text-to-text or intertextual connections will occur for students because they have more texts on the topic from which to make connections. Additionally, educators need to model the behavior of making connections and to think aloud about their connections often, and teachers need to ask questions that prompt students to use information in previously read texts to make meaning. Teachers should expect their students to start making

connections independently without being prompted by questions as they move through topically-related texts.

The students were not only able to make connections, but they were able to discuss what they were learning about making connections. In their interviews, the students reported learning to use multiple pieces of text to make meaning, to check information from one text to the other, and to compare texts to one another. They learned to use multiple pieces of text by being asked to flip back to previously read text by the teacher, put themselves in the texts they were reading, and think back to previously read texts. The students also indicated in their interviews that making connections made it easier to read. The students were able to metacognitively think about their learning and making connections. Instruction based on the C-I model should enhance students' metacognition, which can be represented as the process of thinking about learning and developing a conscious awareness of how learning occurs.

Additionally, the students' self-confidence in their reading increased. This was evident as the students participation in the class increased. As they felt more comfortable they participated in the discussions, lead their own discussions, and volunteer to read aloud.

Instruction based on the C-I model of comprehension give the students an opportunity (a) to make a variety of connections, (b) to talk about their connections, and (c) to feel more confident about making those connections.

Finding 3: Interest and Discussion

In response to the third research question, the data analysis clearly showed that students made connections when they were interested in the topic they read about and

when engaged in discussion with others about the text. It was evident, as demonstrated by Darin and Eric, the students were so interested in what they were reading that they chose to spend their time, after completing the assignment, by reading further about dogs. Many of the students used the Internet as the medium of reading, but nonetheless, they were motivated to read more and gain more information on the topic. This interest in the topic and the texts prompted the students to read more. The additional reading gave the students the opportunities to make personal and intertextual connections they might not have made if they were not interested. The students also read ahead in the book that contained the topically-related texts demonstrating their interest in the topic. This finding supported the claim that when students are interested, it increases their opportunities to make connections.   As the students read more, they made and shared more connections with the class. These finding suggests that teachers need to get to know their students' reading habits and preferences possibly through reading inventory provided to the students at the beginning of the year. Teacher should also be knowledge able about what is going on in the community and the world, as their students are living in these times and might want to read more about current events. Additionally, teachers should keep up with pop culture and media, as the students are consumers of both. When a teacher understands the pop culture and media the students are immersed in, he or she will have a better understanding of what might interest a student. Once teachers get to know their students as readers or non-readers, they can begin to focus their lessons and choose texts on topics of interest to the students. This is because when readers are interested in a topic, it is easier to read about that topic, and readers are motivated to read (Guthrie et al., 1997). Also, if

teachers find interesting topics for their students to read about, the students might read more about the topic, like the students in this study, increasing their opportunities to make connections. In short, if teachers want readers reading more and making connections, teachers must get to know their students in order to identify what topics may interest those students.

Not only did the findings suggest that student interest triggers connections, but the findings also suggested discussion triggers students to make connections. While previous researchers demonstrated that students make intertextual connects when provided with opportunities to discuss text (e.g., Bloome & Robertson-Egar, 1993; Harris et al., 1997; Lenski, 2001; Short, 1991), the findings from this study have extended those by identifying what the students say about what they are learning about making connections. The students reported that discussion helped them make text-to-self and text-to-text or intertextual connections. Text-to-self connections were supported by discussion because the while students listened to other students' connections they recalled their own connections and found themselves relating to others' connections. Text-to-text or intertextual connections were supported by discussion because the students were reminded about previous texts read and saw others flipping back to text already read. These actions reminded students that they should use additional pieces of texts to help understand a new text. Based on this finding, teachers need to provide opportunities for students to discuss texts and share their connections as a way to prompt their students to make more connections when they read. Since curriculum often times dictates what and the amount of time spent on content, it needs to provide time for discussion about the content. Teachers need build time in their lessons for the

students to discuss as through that discussion they could make connections that might not be made or verbalized otherwise. In leading the discussions or in scaffolding for student-led discussions, teachers should keep in mind the important role of connections (all kinds of intertextual connections) and not just discussions about students' emotional or personal responses to texts.

Finding 4: Connections in Content Area Classes Other than English Language Arts

In response to the fourth research question, the data analysis clearly showed that students sometimes made connections in content area classes other than English language arts when given the opportunity in those classes. This finding could mean many things. The students indicated one reason they do not make connections in those classes is because they are not given the opportunity to discuss connections. Sometimes content area teachers worry only about their content and not about readers or about students understanding what they read, even if the students are reading for the content area class. Content area teachers need to allow students to discuss the connections they make in the class regardless of whether those are about what they are reading in the content class or about the topic of the teacher's lecture.

Another issue this finding brings to light is the possibility that students do not associate making connections as something to do in class beyond reading. Students actually could be making these connections without realizing they are doing it. The unit in the reading class of this study enabled the students to focus on making connections, but their content area teachers might not have used terms or language such as "connections," meaning the teachers may not have realized the students were making connections and vice versa.

Overall, the findings of this study revealed compelling evidence that educators must seek ways to instruct students to make connections when they read and to experience opportunities for triggering connections. Additionally, the findings have added to the research literature on comprehension and making connections in relation to the C-I model of comprehension and have suggested that opportunities to make connections in content areas are abundant.

Implications for Theory

The findings from this study suggest that instruction based on the C-I model of comprehension creates an environment in which students can learn to make connections. According to Kintsch (2009), "turning the text into a situation model in the reader's mind requires going beyond the written word" (p. 224), and they integrate their knowledge of the world, topic, and discipline as both domain specific and general. While Kintsch did not directly discuss connections or intertextual connections as part of the C-I model of comprehension, instruction based on the model seems like a natural breeding ground for making these connections. The findings of this study have explained how the addition of making connections might enhance Kintsch's model.

Making connections can be added to Kintsch's (1988, 1998, 2004) model in the reader's creation of the situation model. In the C-I model of comprehension, when building a situation model, idea units (i.e., language, information, and ideas in the texts) combine with the reader's knowledge. This knowledge includes world, topic, and discipline which can be domain specific and general. When readers form their situation models, they construct meaning for the text they are currently reading by using other knowledge they have gained from previously read texts. In this study, connections

occurred when readers recalled personal, world, and textual events or information while constructing meaning. This observation has implied that the integration of knowledge types to idea units yields connections. Based on this study's findings, perhaps Kintsch's C-I model should be integrated with other conceptual frameworks in order to address students' making connections in more explicit ways while reading.

Even through the C-I model of comprehension, does not address discussion or the social aspects of learning, it is evident the students learned from each other through discussion. The addition some of the social dimension of learning would be another way to make Kintsch's model concrete to teachers.

Findings in this study also identified when students are interested and engaged they make more connections. This finding implied that when students build a situation model, the emotional dimension is useful to the meaning-making process and making connections. Kintsch (1988, 1998, 2004) did not emphasize in the C-I model this emotional dimension enough when clearly the students made connections because they were interested and engaged in the texts.

In addition, making connections when reading in order to build knowledge represents a concrete way to talk about what teachers can do to put Kintsch's (1988, 1998, 2004) C-I model into practice. In other words, as teachers help students make connections in a fairly concrete instructional action, they actually help students build situation models which are rather abstract concepts with no clear action steps. Instructional implications of this process are discussed in more detail in the implications for practice section.

From the findings, students can talk about learning to make connections through instruction based on the C-I model of comprehension. Students indicated when they made connections they found it easier to read because they "relate to it," "relate it to real life," and "organize information better." The students made many connections when they read the topically-related texts. The instruction forced the students to revisit the previously read text to gain a better understanding of the text.

For instance, one of the assignments they had was to fill out a matrix of information addressed in four different texts. The teacher questioned the students to think about their thinking and from what sources they were getting their information so they could make sense of what they were reading. This metacognitive questioning seemed to eventually lead the students to think independently about previously read texts and how they used those texts to understand the new text and to make intertextual connections. When the students were asked about what they learned in the unit, they responded by identifying how they made connections. Many of the students stated that they learned how to make text-to-text or intertextual connections by "flipping" back to previously read texts, "learning to use multiple pieces of texts," and "learning about linking pieces of texts."

These findings indicated the C-I model of comprehension can contribute to students' learning to make connections, even when those students have been designated as struggling in school. Additionally, these findings suggest that making connections is one way to build agency in students, as the students in this study took control of their meaning-making. They eventually took action to understand the text in

more complex ways by looking at it in relation to other texts based on their interest and willingness to seek out other texts.

Implications for Research

Since this study only explored what students are saying about if or how they are making connections in content area classes, there is a need to further explore connections students make while in content area classes. Such a study could be accomplished through observation and documentation of the discussions students have while in their content area classes. Interviewing the content area teachers about their instructional practices for teaching making connections as well as observing their instruction would provide additional information about the instruction of making connections in relation to content areas other than English language arts.

More research is needed to investigate students' making of connections in content area reading. The students stated they only sometimes made connections in classes other than English language arts. There is a need to look at the instructional practices of content area teachers to see how making connections fits into their philosophies of teaching. There is a need for additional research in this area to see how students behave in terms of making connections in their content area classes. In the present findings, students made few references to other classes during discussion, but in their interviews, three students identified science, history, and math as areas in which they make these connections. Interestingly, the topic of the texts used in the unit was on dogs and more specifically on the adaptation of dogs, so the texts themselves referred to historical events and scientific concepts. If the students would have been learning

about these historical references and scientific concepts at the time of this unit, they might have made more connections to and in their content area classes.

Additionally, there were two students who stated they did not make connections when they read in content area classes, but they talked about how they made connections in the classes in relation to a teacher's modeling their own connections during lectures. The fact that they recognized their teacher making connections during those think-alouds was important because this connection making demonstrated the students' understanding of making connections. Also, exploring whether current instructional practices in content areas inhibit students' abilities to make connections could add to a deeper understanding of making connections and knowledge building.

According to the students participating in this study, individual teachers can have an effect on student performance. Research has shown that no matter what kind of programs and curriculums are taught, the individual teacher makes the difference (Castellano & Datnow, 2000; Hurst, 1999). The evidence found in this study indicated that students agreed that the teacher makes the difference. When Lynn was asked what she thought about the class, she explained that she felt like she was improving her reading because, "she [the teacher] explains it better than normal LA teachers" and stated that the teacher's pace was the same as hers. Further, 4 out of the 8 students interviewed identified that they made connections before they began this unit, or realized the prior connections, during the unit. They all identified a seventh grade teacher who taught them about making connections the previous year. These students' reports implied the need for more research in the area of teacher effect and making connections.

Additional research is needed on the relationships among self-confidence, making connections, and reading comprehension. The students demonstrated they believed they were learning about connections and improving their reading. Still it would be interesting to explore whether or not, as the students in this study believed, the students really do improve:

- Do their scores reflect the same improvements?

- At what point in reading topically-related texts do the students believe they are improving?

- Does what they are reading as self-selected texts change during the unit either based on interest and text difficulty?

- Do other student populations (younger students, high school students, and English language learners) believe they improve?

Additionally, the exploration of in the same context with a social cognitive perspective would be an implication for research. The researcher would focus on the students' interactions and their collaborative or collective meaning making.

Implications for Practice

Specific implications for instructional practice include using topically-related texts, interest and discussion, teacher-modeling and think-aloud, and identifying struggling readers. Using topically-related texts sets up an environment in which the students make connections. Topically-related texts provide students with background knowledge needed to read future texts on the same topics. The number of text-to-text or intertextual connections the students made in the course increased as the students progressed further into the unit and in the topically-related texts. Educators should

expect for the number of text-to-text or intertextual connections to increase as the students read more on a topic.

Educators should seek texts that are interesting to their students and provide opportunities for students to discuss meaning-making and make connections. Based on this study's findings, when students are interested in the topic they read about, they make more connections. When students are interested in a topic, they read ahead and read independently. Students make more text-to-self connections when they are interested in a topic. In addition to providing students with interesting texts, allowing them to discuss the texts and their connections is important. Educators should allow time in class for students to discuss text, to meaning-make, and to make connections. When students are given the opportunity to discuss, they learn from each other's connections. This study corroborated Short's (1991) finding, that discussion helps students to understand text and make more connections. Educators need to both choose interesting texts and provide opportunities for discussion of both the texts and the students' connections.

Making connections in content area classes was typically dependent upon teacher modeling, lectures, think-alouds, and classroom activities (e.g., experiments). Again, relating "the quality and the quantity of interactions permitted in classrooms [has] a significant impact on the building of intertextual histories in our students" (Cairney, 1992, p. 507) as supported by the findings of this study. Therefore, content area teachers need to create experiences, such as including class discussion, and to ask those questions giving students opportunities to make and explore their connections to themselves, other texts, and the world.

Another implication for practice involves the identification and remediation of struggling readers. In this study, the students were classified as struggling readers according to their standardized test scores. However, the students did not exhibit stereotypical struggling reader characteristics while engaged in instruction based on the C-I model of reading. The students showed interest, were engaged, read outside class, and actively participated in the class discussions. As evidenced in this study, when students have opportunities to read interesting texts and to make connections, they behave like proficient readers. More typical approaches for remediation have included test preparation without allowing students to discuss texts and without encouraging them to make connections, which might cause students to struggle more with reading. A closer look at the remediation programs and instructional approaches used with students identified as struggling readers needs to be taken in order to make changes to improve students' reading abilities.

A final implication for practice applies to library media specialists as they have an impact on students' reading development. Library media specialists help match students with texts as well as build collections that will appeal to the students they serve. The findings in this study indicated that when students are interested in the topic they are reading, they make more connections. One way library media specialists can help students make connections when they read is to get to know the populations they serve. By asking students questions about their lives, their previous readings, and getting to know their culture, including their school culture, such as the curriculum and the pop culture with which they are growing up, library media specialists can make informed decisions for collection development and for making accurate and effective book

suggestions to students. When students find books they are interested in, they will read more and ultimately visit the library media center more often.

Additionally, the findings in this study indicated that when students have opportunities to discuss the texts and their connections, they make meaning. A library media specialist should offer book clubs and book study groups during. During these activities students can feel open to talk about books and intertextual connections, and these opportunities should enable them to learn from one another.

Conclusion

The purpose of this study was to explore the intertextual connections struggling middle school readers made as they read multiple topically-related texts to build knowledge. Clearly, this instruction, based on Kintsch's (1988, 1998, 2004) C-I model of comprehension, created an environment or a context in this middle school classroom that allowed and encouraged students to make connections as they made sense of the texts about dogs and as they built knowledge about the scientific concept of adaptation. These findings and conclusions point to critical aspects of that instructional context--topically-related texts, teacher modeling and think-alouds, texts based on students' interests, classroom discussions about the topic, and discussions about the connections students made. The students in this study not only made rich and generative connections, but they also were motivated to read ahead and beyond the texts in the unit. In this class, these otherwise struggling readers were enthusiastic, engaged, and successful readers.

APPENDIX A

STUDENT ASSENT FORM

Student Assent Form

You are being asked to be part of a research project being done by the University of North Texas Department of Teacher Education.

Ms. Johnson, the school librarian, is going to observe and participate in your class. She will be reading along with you and participating in the classroom discussion you will be having. During this time she will also be taking notes of her observations. She is interested in the kind of connections (to other things read, heard, or seen) students make when they read related texts (texts include fiction, nonfiction, and charts and graphs). The discussions will give you an opportunity to discuss the connections you are making while reading. She will also ask for a survey to be completed and to interview a few students.

You will be asked to participate in your classroom as you normally do, fill out a survey, and possibly be interviewed by Ms. Johnson. The interview will be audio taped. The surveys will be given during a class period and the interviews will take place before or after school. The interviews are expected to take 30-50 min.

If you decide to be a part of this study, please remember you can stop participating any time you choose.

If you would like to be a part of this study, please sign your name below.

_____
Printed Name of Student

_____   _____
Signature of Student   Date

_____   _____
Signature of Principal Investigator   Date

APPROVED BY THE UNT IRB
FROM _8/13/08_ TO _8/12/09_

123

APPENDIX B

INFORMED CONSENT FORM PARENT/GUARDIAN

Before agreeing to your child's participation in this research study, it is important that you read and understand the following explanation of the purpose and benefits of the study and how it will be conducted.

Title of the Study: Learning to Connect Texts: A Study in Intertextuality

Principal Investigator: Sunni Johnson, a doctoral candidate in the University of North Texas (UNT) Department of Teacher Education and the librarian at Gene Pike Middle School in the Northwest school district.

Purpose of the Study: The purpose of this study is to explore the connections students make while reading and understanding texts (texts include fiction, nonfiction, and charts and graphs). The curriculum used in your student's classroom contains a set of related texts that are read and discussed. The discussions will allow the students opportunities to talk about connections (to other things they have read, heard, or seen) the students make while reading. This study is designed to answer these research questions:

- What kinds of connections do the students make while reading related texts?
- What do the students say about if/how they are making connections while reading in their other courses (science, history, math, etc)?
- What do students say about whether making connections among texts improves their reading and thinking and how the connections improve reading and thinking?

Study Procedures: During the students' regular English Language Arts class period, they will be reading a set of related texts followed by discussions about the connections students make among these texts, between these texts and other texts they have read, and between these texts and their knowledge or experiences. Sunni Johnson will be present in the classroom participating in discussion and observing the discussions. The students will be asked to complete a survey about what they are learning in the class, their connections, and if/how they are using connections in other classes. From the results of these surveys, six to eight students will be chosen for individual interviews. The interviewees will be chosen based on the types of connections they make and their ease with making connections. There will be at least one interview, but additional interviews could be added based on the needs of the study. All interviews will be audio taped for reference.

Foreseeable Risks: No foreseeable risks are involved in this study.

Benefits to the Subjects or Others: This project is expected to benefit your child by the addition of a Reading Specialist (Sunni Johnson) to his/her classroom for the time of the project lowering the number of students per teacher and providing students with more individual attention. Additionally, the information gained from the study is expected to benefit the field of reading education and the understanding of connections students make while reading.

Procedures for Maintaining Confidentiality of Research Records: The information gathered during this study will remain in a locked file cabinet and stored on a password-protected file. Only the researcher will have access to the files' information. The participant's names will not be available to anyone. Surveys, interviews, audio tapes, and observation notes will be destroyed after the required 3 years. The results of this project will be published in the form of a dissertation and/or professional journal as well as presented at professional conferences. All participants' names will be pseudonyms.

Questions about the Study: If you have questions about the study, you may contact Sunni Johnson at ▮▮▮▮▮▮, or the faculty advisor, Dr. Leslie Patterson, UNT Department of Teacher Education, at 940-565-4897. Please do not hesitate to call with questions.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at 940-565-3940 with any questions regarding the rights of research subjects.

Research Participants' Rights: Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- You understand the possible benefits and potential risks and/or discomforts of the study.
- You understand that you do not have to allow your child to take part in this study, and your refusal to allow your child to participate or your decision to withdraw him/her from the study will involve no penalty or loss of rights or benefits. The Principal Investigator may choose to withdraw your child's participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as the parent/guardian of a research participant and you voluntarily consent to your child's participation in this study.
- You have been told you will receive a copy of this form.

_____
Printed name of Parent or Guardian

_____   _____
Signature of Parent or Guardian   Date

APPROVED BY THE UNT IRB
FROM __8/13/08__ TO __8/12/09__

APPENDIX C

CONNECTIONS SURVEY

Connections Survey

1. Sometimes when people read books, passages, or stories they make
    connections to (or remember) other books, passages, or stories they have read,
    movies and television shows they have watched, and with their own experiences.
    Do you think it is easy to make these kinds of connections when you read?
    a. Yes
    b. No
    c. Sometimes

2. When you read 2 or more books, passages, or stories on the same topic, how
    often do you make connections between those **books, passages, or stories**?
    a. Always
    b. Sometimes
    c. Rarely
    d. never

3. How often do you make connections to **movies or television shows** you have
    seen when you read?
    a. Always
    b. Sometimes
    c. Rarely
    d. never

4. How often do you make connections to your **life experiences** (things you have
    done, stories someone told you, etc.) when you read?
    a. Always
    b. Sometimes
    c. Rarely
    d. never

5. Do you understand a new book, passage, or story better when you have already
    read something on the same topic or subject?
    a. Always
    b. Sometimes
    c. Rarely
    d. never

6. Often in your language arts class, you discuss books, passages, or stories you have read in class and the connections you and others made while reading those texts. Do these discussions help you make your own connections when you read?
   a. Always
   b. Sometimes
   c. Rarely
   d. never

7. Does making connections when you read make it easier to understand what you are reading?
   a. Always
   b. Sometimes
   c. Rarely
   d. never

8. In language arts, you often read books, passages, or stories and are asked to make connections between them. Do you find yourself making connections between things that you read in other classes such as history, science, and math?
   a. Always
   b. Sometimes
   c. Rarely
   d. never

9. Do you have opportunities to discuss the connections you make when you read in other classes (history, science, math)?
   a. Always
   b. Sometimes
   c. Rarely
   d. never

10. Do you like to read?
    a. Yes
    b. No

11. Do you think the topic you are reading about (dogs) is interesting?
    a. Yes
    b. No

12. Have wanted to read about dogs on your own since you started reading about them in class?
    a. No
    b. Yes (please tell me about what you read or researched outside of class)

APPENDIX D

SURVEY RESPONSES

Survey Responses

Survey Question	Responses
1. Sometimes when people read books, passages, or stories they make connections to (or remember) other books, passages, or stories they have read, movies and television shows they have watched, and with their own experiences. **Do you think it is easy to make these kinds of intertextual connections when you read?**	Yes: 54% No: 12% Sometimes (please explain): 35% with 9 explanations
2. When you read 2 or more books, passages, or stories on the same topic, **how often do you make connections between those books, passages, or stories?**	Always: 12% Sometimes: 73% Rarely: 15% Never: 0%
3. **How often do you make connections to movies or television shows you have seen when you read?**	Always: 38% Sometimes: 35% Rarely: 19% Never: 8%
4. **How often do you make connections to your life experiences (things you have done, stories someone told you, etc.) when you read?**	Always: 31% Sometimes: 54% Rarely: 15% Never: 0%
5. **Do you understand a new book, passage, or story better when you have already read something on the same topic or subject?**	Always: 35% Sometimes: 42% Rarely: 19% Never: 4%
6. Often in your language arts class, you discuss books, passages, or stories you have read in class and the connections you and others made while reading those texts. **Do these discussions help you make your own connections when you read?**	Always: 23% Sometimes: 65% Rarely: 12% Never: 0%
7. **Does making connections when you read make it**	Always: 35% Sometimes: 62% Rarely: 4% Never: 0%

easier to understand what you are reading?	
8. In language arts, you often read books, passages, or stories and are asked to make connections between them. **Do you find yourself making connections between things that you read in other classes such as history, science, and math?**	Always: 27% Sometimes: 54% Rarely: 15% Never: 4%
9. **Do you have opportunities to discuss the connections you make when you read in other classes (history, science, math)?**	Always: 19% Sometimes: 58% Rarely: 15% Never: 8%
10. **Do you like to read?**	Yes: 62% No: 38%
11. **Do you think the topic you are reading about (dogs) is interesting?**	Yes: 85% No: 15%
12. **Have you wanted to read about dogs on your own since you started reading about them in class?**	Yes (please tell me about what you read or researched outside class): 27% with 7 personal responses No: 72%

APPENDIX E

INTERVIEW PROTOCOL

Interview Protocol

1. Do you like this unit with Mrs. Hughes? If so, what do you like about it?

2. What have you enjoyed about reading the texts in this unit?

3. What have you learned in this unit?

4. How has making intertextual connections made it easier to understand the texts?

5. How are you using this strategy in your other classes?

6. Do you find it easy to make intertextual connections between texts? How so?

7. How has the classroom discussions helped you in learning to make intertextual connections?

8. Has learning and practicing making intertextual connections made you a better reader? How so?

9. When you are interested in a subject do you think it is easier to read something about that subject?

10. Define a good reader

11. Do you think you are a good reader?

12. Do you like to read?

13. What do you read?

APPENDIX F

SAMPLE LESSON

(From *LITERACY NAVIGATOR FOUNDATIONS LEVEL C* © 2007 by America's

Choice. Used by permission from Pearson Education, Inc. All Rights Reserved.)

From Big Bad Wolf to Man's Best Friend

Students' Learning Objectives for This Lesson

- Track information on the Timeline for Dog Adaptation
- Synthesize information from prior readings on the family Canidae to better understand a more challenging text
- Use new vocabulary words in a discussion of the lesson's topics
- Identify the author's purpose or main point for each paragraph of the text

Teacher's Activities to Guide This Learning

- Introduce students to the Timeline for Dog Adaptation as an aid to following the main points of the text
- Elicit students' prior knowledge to describe the domestication of dogs
- Pause during reading to define challenging new vocabulary words
- Ask students to read each paragraph aloud and discuss what the author is trying to convey

Relevant Vocabulary for Lessons 7, 8, and 9

- **domestication** the process of adapting to living with human beings and to serving their purposes
- **olfactory** of, relating to, or concerned with the sense of smell
- **conformation** 1) the act of conforming or producing conformity; 2) the form or outline especially of an animal
- **lineage** the ancestors from whom a person is descended
- **instinct** 1) an act or course of action in response to a stimulus that is usually inherited and is automatic rather than learned; 2) behavior that is based on automatic actions
- **predator** an animal that lives by killing and eating other animals
- **canine** of or relating to dogs or to the family that includes the dogs, wolves, jackals, and coyotes
- **symbiotic** a cooperative relationship (as between two persons or groups)
- **muzzled** the protected part of an animals head including jaws, mouth, and head
- **predator** an animal that preys on others for food
- **vermin** small, objectionable animals, especially those like lice, that are hard to control
- **purebred** bred from members of a recognized breed, strain, or kind without cross-breeding over many generations
- **crossbreed** to cross two varieties or breeds of the same species
- **mix breed** a dog that is a mixture of four or more breeds
- **quarries** an animal hunted as game or prey

From Big Bad Wolf to Man's Best Friend

Materials Needed

- Chart paper and markers
- Student Readers
- Members of a Family

- Timeline for Dog Adaptation
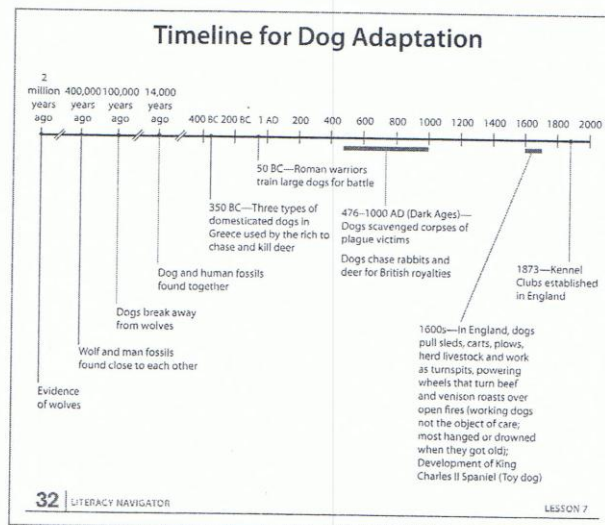- "From Big Bad Wolf to Man's Best Friend" (see pages 55–60)

Introduction

- Tell the students that in order to understand more about how the dog adapted to humans, they will have to consider the dog through a historical perspective.

- Explain that today they are going to begin reading an article about how dogs were domesticated.

  – Ask the students if they know what *domestication* means.
  To become "domesticated" means to adapt to life close to humans and to the advantage of humans.

- Have the students brainstorm the benefits dogs bring humans and why they might have been domesticated. Chart their answers.

  – Have the students revisit Members of a Family (introduced in lesson 2) and remember that dogs are very close genetically to wild animals.

  > **Student Reader**
  >
  > Members of a Family is on page 5 of the Student Reader. The Timeline for Dog Adaptation is on page 32 of the Student Reader.

- Direct the students to the Timeline for Dog Adaptation in their Student Readers.

  – Discuss the timeline with the students.

  – Tell them that this visual will help them understand what they are about to read.

Timeline for Dog Adaptation, Student Reader, page 32

139

Work Time

- Have the students turn to "From Big Bad Wolf to Man's Best Friend" in their Student Readers. You can find a copy of the reading beginning on page 55 of this Teacher Edition.

  > **Student Reader**
  >
  > "From Big Bad Wolf to Man's Best Friend" begins on page 25 of the Student Reader.

  - During the reading, define the relevant vocabulary on page 61 of this Teacher Edition and have the students write the definitions of the words in the margin of the text in their Student Readers.

  - Tell the students that all the information they have accumulated from their previous readings will help them understand this article.

- Have a student read the first paragraph aloud.

  - Tell the students that you know there is some challenging vocabulary in this text, and that is why you are reading it together.

  - Explain that *nomadic* means "traveling or moving around."

  - Ask a volunteer to put the information from the first paragraph into his or her own words.
    Possible answer: Dogs were first domesticated in western Asia as a result of interbreeding.

  - This first paragraph, then, answers the question of **where** dog domestication took place. This is the purpose of the paragraph.

- Ask a student to read the second paragraph.

  - Stop the reader to define several words.

    › *Excavations*—where layers of the earth are moved, usually to make flat surfaces to build on

    › *Speculate*—to suggest conclusions when you do not have enough information to be certain

    › *Eurasia*—continents of Europe and Asia

  - Think aloud about the purpose of this paragraph. You might say, "Consider the first sentence in this paragraph, then think, if paragraph 1 was about where dogs were first domesticated, this paragraph is about **when** dogs were first domesticated."

- Ask a student to read paragraph 3.

  - Stop the reader to define several words.

    › *Stamina*—physical strength

    › *Midden*—a dumpsite

  - Ask the students what the purpose of this paragraph is.
    Possible answer: This paragraph is about why dogs were domesticated.

- Have the students recall the "The Adaptable Coyote" article (introduced in lesson 3) and how coyotes lived close to humans. Discuss **how** Stone Age people possibly had dogs living close to them too.

- Ask a student to read paragraph 4.

  - Discuss the purpose of this paragraph.
    Possible answer: To illustrate how humans might have seen the value of dogs—to warn of predators.

- Read paragraph 5 aloud.

  - Define the word *spoor*.
    "Spoor" is the track or scent that an animal leaves.

  - Have a student identify the purpose of this paragraph.
    Possible answer: To explain how humans used dogs for their ability to smell and hunt, as well as protect.

- Before reading paragraph 6, define *symbiotic* as "a relationship where two things benefit each other."

  - Discuss the give and take relationship that was going on in the Stone Age.
    The students should understand that dogs lived by people for their scraps of food. Stone Age people possibly ate the dogs as a source of food, and dogs provided protection from predators.

- Ask a volunteer to read paragraph 6.

  - Ask a student to explain what the author was trying to say here.
    Possible answer: Dogs and humans have a symbiotic relationship. Dogs worked for humans and in turn humans fed them.

  - Have the students discuss the ways that dogs work for humans today. Chart their responses.

- Have the students read paragraphs 7 and 8 silently, and then work with a partner to list the ways dogs have been used.
  Answers should include pulling a sled, space travel, and herding.

141

- Finally, have the students read paragraph 9 silently and think about why the author included this paragraph.

  Possible answer: This paragraph is about dogs who herd sheep.

  – Discuss the students' responses.

  – Note that at this point the text has identified three ways dogs are useful to humans. They protect, they hunt, and they herd.

  – Explain that because dogs derive from wolves, all dogs may be protective by nature. But hunting and herding are functions dogs have learned in order to be useful to man.

Reflection

- Have the students look back at Members of the Family and look at the breed groups for hunting and herding.

  – Discuss why there is not a group for protecting.

142

APPENDIX G

EXAMPLE CLASS DISCUSSION WITH DEVELOPING CODES

EXAMPLE CLASS DISCUSSION WITH DEVELOPING CODES

6th period-

Lesson 1- The students are reading about Beulah, a dog that goes to the spa and receives services from the spa that are for dogs. The text does not let the reader know it is a dog that is at the spa until the end. It sounds like a normal person is being picked up by a limo and receiving spa services.

Background information is discussed on dogs and wolves through what they know about both animals. They are talking about their own dogs and their own dogs' traits. —— *Text &Text*

—— *Text & S*

Mrs. Hughes: Some people treat their dogs really well?
All: yea
Mrs. Hughes: What do their dogs wear?
All: Clothes (loud)
Jessie: Diamonds
Mrs. Hughes: By who?

T&S
T&W

Darin: My uncle buster gave his dog an I love New York thing to wear *Personal Conn.*
T&S
Students got to choose their own seats- they are visiting a lot with their friends – *Disengaged ?*

Behavior

Hitting the desk together against each other (Abraham and Nelly) *behavior*

Mrs. Hughes: What does the word Pamper mean? – *Vocabulary*
all: spoil
Mrs. Hughes: Name one thing you do to paper your dog? I will give you an example,
my dog gets to go to a puppy bakery once a week. – *T&S – personal connect – Teacher modeling*
Darin: wow is that true?
Mrs. Hughes: It is true.
all: (laughing) —— *fun?*
T&S — Darin: we usually lock my dog in a crate at night, but instead I let her sleep with me. *T&S*
Mrs. Hughes: yes that would be pampering your dog.
(students are discussing with their partners) my dog gets special treats, my mom buys my
dog clothes...stupid, did you hear Darin?, his uncle gave his dog clothes too —— *Student connection?*

Skill – Students read paragraph 1 while identify what the paragraph is about.

Students were seated to face each other. Students are writing in their books next to each · *engaged*
paragraph. They are identifying what the paragraphs are mainly about.

engaged – interest? motivation? Abraham is reading ahead, but Mrs. Hughes stopped him. Got him back on track with monitoring the work the students are doing and walking around. – *Teacher* .

Students read paragraph 3 to themselves. Chris read with his head down and stayed that
way most of the period. *disengage?*

Talked with partners about their responses to each paragraph. They are finding the main idea of each paragraph in order to check for their understanding.

Skills
Interest Level?
Self-confidence

Students are competitive for which is better of their answers is better. (Steve and Javier) Steve started it off by debating that we should pamper dogs more often and defends his answer by telling Javier that his dog is part of their family. —T∂S

Students questioned the text as they read
Jimmy: this paragraph… is weird… she ate the card? —*questioning the text — interest? - Skills*

Mrs. Hughes: Ok let's talk about that. What do you think that means? Who is in the car?
All: Beulah
Mrs. Hughes: Ok who is Beulah?
All: Someone going to the spa
Darin: no it is a dog
Jimmy: how do you know that?
Nancy: it says she got a bath and teeth cleaned at the spa. That is not what people do at a spa. —T∂W? —T∂S?
Darin: It did not say she is a dog, but hello, who eats a card. —T∂W
Jimmy: oh, ok.

Skills?

Skill —

Mrs. Hughes: so you used the information and clues in the text and your own knowledge —T∂S/TPW about dogs and spas to understand that sentence. Good
Jimmy: this is weird
Mrs. Hughes: We will read the rest of Beulah tomorrow.

Bell rings

T∂S
Interest
Javier engaged in conversation with the teacher about dogs after class telling her that he has 4 dogs, but one has died. *personal*

(Once the class got going the students seemed engaged in the lesson, paying close) attention to the information, discussing, and reading.

7th period

Lesson 1- The students are reading about Beulah, a dog that goes to the spa and receives services from the spa that are for dogs. The text does not let the reader know it is a dog that is at the spa until the end. It sounds like a normal person is being picked up by a limo and receiving spa services.

Background information is discussed on dogs and wolves through what they know about both animals. They are talking about their own dogs and their own dogs' traits.

Build Background Knowledge
Recall

Mrs. Hughes: What do you know about dogs and wolves?

Students are playing around (talking with one another) ignoring Mrs. Hughes

She has to take about 10 min to discipline this class and capture their attention.

[handwritten margin: Behavior disengaged?]

It is obvious the students do not want to work with Josh. They were able to choose their seats and no one sat with him. He yelled out, "I had pizza for lunch", and "Mrs. Hughes where do you shop for groceries." His inappropriate responses were ignored by the others. Julie was assigned to be his partner, but he is not interacting with her. The other students and teacher ignore his appropriate responses. He does not want to do the assignment and asking what time class is over. Jose does not wanting to work with the student who is his partner. He is ignoring that person.

[handwritten margin: behavior] *[handwritten right: interest engaged]* *[handwritten margin: behavior disengaged]*

Jose: I don't care about any of this

Josh was sent to the office for disruptions.

Mrs. Hughes asked the students to think about what they know about dogs and wolves. Jose is throwing his pen in the air and standing instead of sitting. He speaks out of turn often. *[handwritten: behavior]*

[handwritten margin: Building Background Knowledge recall]

When the students are talking to each other about what they think the story is all about they are ignoring the inappropriate responses from him. *[handwritten: engaged?]*

Mrs. Hughes: What is positive about a wolf?
Sam: they eat other animals
 unknown: they like like stay inside and sleep with them
Mrs. Hughes: right they add to the ecosystem in a way

[handwritten margin: T2W]

Mrs. Hughes: Can anyone tell me what the word pamper means?
Bill: spoil
Mrs. Hughes: right, spoil

[handwritten margin: Vocabulary]

Students begin reading Beulah

Abigail: This sounds like it is a person's spa.

[handwritten margin: T2W]

Mrs. Hughes: When a reader reads it is important to identify the main idea and put things in your own words. She demonstrates this with doing a think aloud about paragraph 1. *[handwritten: Modeling]*

[handwritten margin: Skills]

Students are asking questions about how to identify the main idea and put it in their own words.

Mrs. Hughes: a main idea is found when you read the paragraph and think in your head what the paragraph mainly telling you about. Sometimes a sentence in the paragraph could be the main idea. You will write only one sentence to identify the main idea.

[handwritten margin: Skills]

Nancy: Really…. all in one sentence? *-Check for understg?*

The students read paragraph 2 with their partner and talk about the main idea.

Matt to Jeremy: it is about arriving at the spa
Jeremy to Matt: what she sees and smells *}recall – skills -MI*

bell rings

While it took this class a while to get settled down and deal with the behavior issues, by the time they started reading the students seem engaged. They are reading all of the information quietly and stayed on task. Even Jose who said he did not care was reading quietly and talking with his partner about Buelah.
} changin blase + robs?

147

APPENDIX H

EXAMPLE INTERVIEW CODES AND CATEGORY MAP

EXAMPLE INTERVIEW CODES AND CATEGORY MAP

Codes and Category map for Lynn's Interview:

Teacher effect-

- She explains better than normal LA teachers
- Her pace is the same as mine
- She works a little slower and she like works at an easier pace

Interest-

- I love dogs… dogs are my life
- Enjoys reading texts in class because she loves dogs
- Reading about dogs outside of class (feet)

Text -to-self-

- Told story of her friend having a different point of view and through discussion she came to understand how he interprets things different than she does.
- has a dog that had puppies
- Uncle getting puppy for cousins

Application of knowledge to real life

- Talked about what kind of dog her cousin should get
- You do research first then get a dog

Feeling toward reading

- I love reading
- Does not like to read out loud
- Likes the course
- I like to work a little slower than normal

Books read

- Twilight and Wannabees

Vocabulary

- olfactory
- Cooperative relationship
- Sometimes gets stuck on words (vocabulary) and thinks this makes the texts sometimes hard

Perception of others

- Teacher's pet

Purpose of class

- Reading
- If I understand it better now may be I will do better on TAKS

Text-to-text

- flipping back to use matrix when asked
- Looking up vocabulary words
- Go back to something else you read then you will understand it better
- Compare it to the one you are reading now it makes more sense to you
- Revisited notes in science to do answer a review
- use of matrix for cousin

Self-Confidence

- tried to read a book she would not have tried last year
- if you have the information there why not use it
- You will get it 99% of the time if you go back (to the texts)
- Not afraid to ask for help

Believed improvement:

- this class has done a lot for me (easy to make connections)
- Did not go back to things before this class
- It is easier for me to comprehend
- Last year I wouldn't have gotten any of it (Twilight)
- Did not make connections before this course

Discussion

- Point of view

Personal perceptions:

- gets embarrassed to read out loud because sometimes she does not get the words (yet she volunteers to read aloud often in class)
- If I understand it better now may be I will do better on TAKS
- Success (it's a lot easier for me to comprehend)

Identification of course materials:

- Dog matrix

Teacher expectations:

- Do work first and hang out later

Use in content area class:

- Went back to my notes and I understood it (science)
- History teacher does not give the students the chance to flip back to information they have previously read
- History teacher makes his own connections in class while teaching

Overall, Lynn likes the course and is interested in dogs which probably help her opinion of the course. She says she likes the course because it is helping her comprehend easier "to get through my mind". She likes the fact that the course seems to be a "slower pace" than her other courses. She identifies the teacher as explaining things better than normal LA teachers and she works "a little slower" and "her pace is the same as mine so it's easier to work. She says that she likes to work a little slower than normal people. She states that she has two dogs (also talks about this a lot in class) that just had puppies. She enjoys reading and is reading the Twilight series right now. She talks about specific scenes in the book and states that she use to read another series called "Revenge of the Teenage Wannabees". She has enjoyed almost everything they have done in class because she loves dogs. When she was asked if she is learning anything new she told a story about how she is using her new knowledge in a personal way. Her cousin wanted to get a dog for his kids and she gave him advice based on what she was learning in the class. I probed her on what she could have showed her cousin that would have helped him make the right choice about a dog. She identified the dog matrix in her book. She first made a personal connection then she made a text connection after probing. She identified that she is learning about vocabulary "olfactory" (a word she used often in class after she read it and talked about it with other students (this was kind of her joke in the class, but she really learned it)). She identified herself as the teacher's pet or that is what the other students think. She did identify after probing that the purpose of the class is to improve your reading. She

said she is learning how to comprehend better and give an example about her not trying to read Twilight last year because it was too hard. She says she is not afraid to ask what a words means when she does not know and states she would not have understood the text at all if she read it last year. When asked if she ever looks back at the other texts in the book she said that she does it "all the time". She gives the example of being asked what a cooperative relationship is and how she "was flipping back" to where she wrote down the vocabulary word to find the answer. She also stated that the teacher asks the students to flip back to the matrix often and stated that she might as well use it if the answers are there. States that other students do not always do this but they just guess. She did know how to do this before she just "chose" not to but sees now that it helps a lot. She thinks this class is helping her learn to go back to the things she has read. When asked if she thinks it is easy to make connections, she thinks that "now" she does and that the class has done a lot for her. She says that when you make connections it makes it easier to read and that if you can go back to something that you read then you understand it better and can compare it to what you are reading to make sense of it. She also states that when you make text-to-self connections it makes it easier to read because it might have happened to you. She stated that she uses these strategies in science the other day; she went back to the information she read to fill in a review. She went back to her notes. Stated she did not do that before this class. She thinks that having discussions about what you are reading helps because you can see others points of view and that helps you understand the text better. She states that when you are interested in something it is easier to read than if you are not and give an example of birds. Says she does not get the opportunities in other classes to make connections because the teachers say "it's in your memory" you don't need to go back and look for it." However, says that the history teacher makes his own connections out loud when he teaches. Lynn has explored the topics studied in this class outside of class by doing some research on dogs and their feet based on some questions she had about her own dog.   When asked if the she thinks the texts are hard to read she talked about reading aloud and stuttering and getting embarrassed and says she feels more comfortable reading in her mind then out loud. She states that if she understands more about reading now she might do better on TAKS.

APPENDIX I

COMBINED CODES AND CATEGORY MAP FROM INTERVIEWS

Interview codes and category map

Darin - purple
Eric - brown
Lynn - black
Matt - lt. blue
Nancy - green
Nelly - orange
Sam - hot pink
Steve - lt. pink

TEACHER INFLUENCE- TI

- She explains better than normal LA teachers TI-1
- Her pace is the same as mine TI-2
- History teacher does not give the students the chance to flip back to information they have previously read TI-3
- History teacher makes his own connections in class while teaching T1-4
- Suggested a book Maximum Ride TI-5
- Mrs. Douglas T1-6
- Try not to seem bored cause I am trying to learn and trying to be a good student TI-7
- Already knew how to do that from last year's teacher TI-8

FEELING TOWARD READING (FTR)

- A little bit of a good reader FTR-1
- Does not really like reading FTR-2
- Likes reading about this topic (dogs) FTR-3
- Not really (a reader) FTR-4
- Getting where I like to read (because of this course) FTR-5
- I love reading FTR-6
- Does not like to read out loud FTR-7
- Does not like to read FTR-8

- Likes to read, but likes to read his type FTR-9
- Considers himself a little bit of a good reader FTR-10
- Likes to read FTR-11
- Can get confusing FTR-12
- Good reader FTR-13
- Goes to the library and likes to read FTR-14
- Does not like to read FTR-15
- Does not like reading FTR-16
- Does not read outside school FTR-17
- Yeah (likes reading) FTR-18
- Don't get to read that much FTR-19
- gets embarrassed to read out loud because sometimes she does not get the words (yet she volunteers to read aloud often in class) FTR-20

CHARACTERISTICS OF A GOOD READER (CGR)

- sound words out CGR-1
- reads with emotion CGR-2
- Using textual evidence CGR-3
- Read all the words CGR-4
- Use a highlighter CGR-6
- Can handle vocabulary CGR-7
- Likes to read a lot of books CGR-8

- Spends more time reading then on video games CGR-9
- Someone who can understand the text and is able to make questions and connections CGR-10
- Reads lots of books CGR-12
- Makes lots of inferences CGR-13
- Jots things down in the margins CGR-14
- Read words really good CGR-15
- Orally and silent reading CGR-16

WHAT THEY ARE READING (WTR)
- Mysteries WTR-1
- Internet WTR-2
- History WTR-3
- Sometimes reads magazines WTR-4
- Twilight and Wannabees WTR-5
- Science fiction WTR-6
- Stephen King WTR-7
- Sports (dirt bikes, hunting, fishing) WTR-8
- Reads magazines WTR-9
- Science fiction WTR-10
- Nonfiction books (politics, government, laws, amendments) WTR-11
- Drama books WTR-13
- Magazines, newspapers, internet WTR-14
- Adventures WTR-15
- Dragon Keeper WTR-16
- Fantasy WTR-17

PERSONAL INTEREST (PI)

- I love dogs… dogs are my life PI-1
- Interested in dogs before the course PI-2
- Loves dogs PI-3
- Has dogs on wiki space- PI-4

- Likes learning about animals PI-5
- Know a lot about dogs PI-6
- Interested in dogs PI-7
- Has 3 dogs at home PI-8
- Wiki space PI-9
- A little right now I am starting to get interested into things about dogs PI-10
- Want to be a vet when I grow up PI-11
- Need to know this stuff if I am gonna be a vet PI-12

INTEREST DRIVES READING (IDR)

- Enjoys reading texts in class because she loves dogs IDR-1
- Reading about dogs outside of class (read about webbed feet on her own) IDR-2
- Read about dogs on own about what they need and exercise IDR-3
- Had not read about dogs before the course IDR-4
- Likes reading about this topic (dogs) IDR-5

WHY INTEREST MATTERS (WIM)
- Reading something interesting is easier to read WIM -1
- Pay attention WIM-2
- I don't blow it off when it is interesting WIM-3
- We are reading lots of interesting stories WIM- 4
- Easier to read that subject WIM-5
- Easy to read on dogs because she is interested in them WIM-6
- Pulls you in and you can focus more on it WIM-7
- Grabs your attention better WIM-8

- Getting where I like to read (because of this course) WIM-9
- Easier to read about something you are interested in it WIM-10

HOW DISCUSSION HELPS (HDH)

- Other people have different connections they can make HDH-1
- Tell them what you have done HDH-2
- Relate to theirs a little bit HDH-3
- (learn to) Use more mature words HDH-4
- You hear other peoples discussion and make connections and share a story too HDH-5
- Helps readers to have discussions HDH-6
- Listen to what they say and then you could say something that it reminds you of HDH-7
- Saw someone flip back in their text and reminded him to do the same HDH-8
- Helps him understand HDH-9
- Get advice from different people HDH-10
- Put that all together and get one main thing HDH-11
- People discussion of what happened to them remind you of your own stories HDH-12
- Yes helps understanding HDH-13
- Different people have different ideas and different thoughts of the story HDH-14
- You can compare them to your own HDH-15
- Change what you think about it HDH-16
- Changes your understanding (Finds himself doing that during discussion) HDH-17
- Learn from others HDH-18

- Remind you of your own connectionsHDH-19
- You weren't thinking the same thing as someone else was HDH-20
- Help you understand it better HDH-21
- They will give you a little more information then you did HDH-22
- Helps to have classroom discussion HDH-23
- Everyone else talks and you start to understand HDH-24
- They explain it to you HDH-25
- Understand the text better HDH-26
- Group members help you HDH-27

WHAT DOES LEARNING ABOUT CONNECTIONS LOOK LIKE TO STUDENTS (LAC)

- Learning to use important multiple pieces of text LAC-3
- Look up if the facts are right in a different story LAC-4
- Thinks about flipping back to the stories on his own LAC-5
- Learning how to flip back in class LAC-6
- Identified text to world and said he was learning that LAC-7
- Learning about linking pieces of text LAC-8
- Looks back at the text and my notes LAC-9
- We had to flip back to several texts LAC-10
- Learning how to make connections LAC-11
- Talk a lot about the stories we read and our lives LAC-11

156

- Put yourself inside the story and think you are the person who owns the dogs LAC-14
- Finds herself flipping back to the text she already read LAC-15
- We practice flipping back or remembering what we read before LAC-19
- We do it (referring to connections to stories read) everyday LAC-20
- First one I have make a lot of connections LAC-2

Thoughts about connections
- Finds it easy to make connections between texts LAC-1
- I can relate to the stories we are reading LAC-13
- Yes (learning about connections) LAC-16

- Learning it in the course LAC-17
- Understanding how to make connections LAC-18
- Did not make connections before UC-1
- Did not do that before UC-3
- You would know what they were talking about instead of just reading it you can flip back and know exactly what it means UC-4
- Finds it easy depending on the story UC-5
- Failed to realize that is what he was learning UC-6
- Easy to make connections UC-7
- Yes (learning about connections) UC-8
- Already knew how to do that from last year's teacher UC-9
- Yes (learning about connections) UC-10
- Thinks they are easy to make UC-11

- No, I already knew that (how to flip back to text) UC-12
- Did not make connections before UC-13
- Sometimes easy to make connections when reading UC-14
- Takes a minute to make connections when she reads UC-15
- Does not make as many connections to other texts because she does not read much UC-16
- Finds it easy to make connections UC-17
- if you have the information there why not use it UC-18
- You will get it 99% of the time if you go back (to the texts) UC-19
- Not afraid to ask for help UC-20

TEXT TO TEXT- (T2T)
- flipping back to use matrix when asked T2T-1
- Looking up vocabulary words T2T-2
- Go back to something else you read then you will understand it better T2T-3
- Compare it to the one you are reading now it makes more sense to you T2T-4
- Revisited notes in science to do answer a review T2T-5
- Saw someone flip back in their text and reminded him to do the same T2T-6
- (makes connections with) chart of the different dogs T2T-7
- Look up if the facts are right in a different story T2T-7
- Talked about a bull massive and had to go Back to Man's Best Friend to see how the bull massive came to be T2T-8

157

- Go back to things (texts) a lot T2T-9
- Looks back at the text and my notes T2T-10
- Finds herself flipping back to the text she already read T2T-11
- I can think back to what I read before T2T-12
- Does not make as many connections to other texts because she does not read much T2T-13
- We practice flipping back or remembering what we read before T2T-14

HOW CONNECTIONS HELP (HCH)
- Helps him understand the text HCH-1
- Relate to it (text) HCH-2
- Relate it to real life HCH-3
- Makes it easier to read HCH-4
- You would know what they were talking about instead of just reading it you can flip back and know exactly what it means HCH-5
- Believes making connections helps him read HCH-6
- Believes learning about making connections makes him a better reader HCH-7
- Makes it easier to read cause you get a picture HCH-8
- You can think of something that happened and it helps you out HCH-9
- Has helped him read better HCH-10
- Connections make it easier to read HCH-11
- Makes me understand more of the story HCH-12
- Yes cause when you are reading you can relate to it and it makes it so much easier to keep reading the story HCH-13
- Helping with comprehension HCH-14
- Organize information better HCH-15
- Makes it easier to comprehend when making connections HCH-16
- Go back to something else you read then you will understand it better HCH-17
- Compare it to the one you are reading now it makes more sense to you HCH-18
- When they stop us it kinda connect to something else and helps us understand HCH-19
- Told story of her friend having a different point of view and through discussion she came to understand how he interprets things different than she does. HCH-20
- Yes (connections make it easier to read) HCH-21
- Easier to read when making connections HCH-22

TEXT TO SELF (T2S)
- has a dog that had puppies T2S-1
- Talked about what kind of dog her cousin should get T2S-2
- Has 3 dogs T2S-3
- Terriers T2S-4
- probed use of matrix for cousin T2S-5
- Makes connections to things he know nothing about (when reading) T2S-6
- You can think of something that happened and it helps you out T2S-7

158

- "I can say oh I saw this doing that" (text to world) T2S-8
- Talk a lot about the stories we read and our lives T2S-9
- I talk about my dogs T2S-10
- Put yourself inside the story and think you are the person who owns the dogs T2S-11

USE OF LEARNED CONTENT (ULC)
- Talked about what kind of dog her cousin should get ULC-1
- You do research first then get a dog ULC-2
- Helping me out a lot with my dog ULC-3
- Which dogs is the best for Ms. White ULC-4
- Uses vocabulary (olfactory) outside the classroom with mom when dogs was smelling around the garage looking for mice ULC-5
- He understands more about his dogs based on what he is learning in the class UCL-6
- Leading discussion in his English class UCL-7
- Talk to my sister about the hounds and their ears and how they are used to smell things UCL-8

PERCEIVED PURPOSE OF CLASS (PPC)
- How to read PPC-1
- To be a better reader PPC-2
- Helping me with reading PPC-3
- Reading PPC-4
- If I understand it better now may be I will do better on TAKS PPC-5
- How society was built PPC-6
- Dogs are man's best friend PPC-7

- Help you with reading and your reading skills PPC-8
- Help him read better PPC-9
- Understand reading PPC-10
- Learn about dogs PPC-11
- Get ready for the reading TAKS PPC-12
- Understand what you are reading and be able to answer questions about it PPC-13
- Understand better PPC-14
- Understanding PPC-14
- See how good we comprehend and improve PPC-15
- Improve your reading PPC-16
- to help me with questions PPC-17

IDENTIFICATION OF COURSE MATERIALS (ICM)
- Dog matrix ICM-1
- Beagle brigade ICM-2
- Different types of dogs ICM-3
- Sporting ICM-4
- Toy group ICM-5
- Hound group ICM-6

RECALL OF VOCABULARY (ROV)
- Olfactory ROV-1
- Cooperative relationship ROV-2
- Olfactory ROV-3
- Uses vocabulary (olfactory) outside the classroom with mom when dogs was smelling around the garage looking for mice ROV-4
- Terra ROV-4

RECALL OF SKILLS (ROS)
- Inferencing ROS-1
- Jot things down ROS-2
- Wondering about like questions we want to know ROS-3
- Write main ideas next to the paragraphs ROS-4

159

- Summarize the paragraphs ROS-5
- Skim ROS-6
- Go back to the stories ROS-7
- Write questions ROS-8
- Underline important facts ROS-9
- Main idea ROS-10
- Shorten the information in a paragraph to a sentence (main idea) R0S-11
- Go back to things (texts) a lot ROS-12
- Look back at text ROS-13
- Ask questions ROS-14
- Make little notes ROS-15
- Write a short sentence about the whole thing (paragraph) ROS-16
- Make notes ROS-17
- Questions ROS-18
- Underline ROS-19
- Highlight ROS-20
- Summarize ROS-21
- Flip back ROS-22
- Questioning the text ROS-23
- Write out beside the paragraphs ROS-24
- Underline ROS-25
- Going back over the stories and stuff ROS-26
- Filed in the matrix of stuff about dogs and had to go back over the stories ROS-27
- Making charts ROS-28
- Use the stories we already read to fill in the charts and matrix ROS-29
- Go back to the other stories ROS-30
- Look for certain information that is important to the stories ROS-31
- Write little notes beside the paragraphs ROS-32
- Write down main idea of the paragraphs ROS-33

- Catch the main idea better and be able to understand more of the story ROS-34

BELIEVED IMPROVEMENT (BI)
- Getting where I like to read (because of this course) BI-1
- Likes the class because it helps her BI-2
- the class is "helping me understand" BI-3
- Helping her understand better BI-4
- Learning new things BI-5
- Believes learning about making connections makes him a better reader BI-6
- tried to read a book she would not have tried last year BI-7
- this class has done a lot for me (easy to make connections) (confidence) BI-8
- Did not go back to things before this class BI-9
- It is easier for me to comprehend BI-10
- Last year I wouldn't have gotten any of it (Twilight) BI-11
- it's a lot easier for me to comprehend BI-12
- If I understand it better now may be I will do better on TAKS BI-13

RECALL OF LEARNED CONTENT (RLC)
- Like how you play with dogs RLC-1
- Mixed dogs like the Puggle RLC-2
- How dogs smell cancer RLC-3
- What their traits are RLC-4
- Their evolution from coyotes to dogs or wolves to dogs RLC-5
- How society was built RLC-6

- Dogs are man's best friend RLC-7
- How dogs were domesticated RLC-8
- Some dogs have webbed feet that help them to swing RLC-9
- Each type of dog has different characteristics RLC-10
- about the hounds and their ears and how they are used to smell things RLC-11
- Where dogs came from RLC-12
- Dogs came from coyotes and wolves RLC-13
- They can smell cancer RLC-14
- How like they started out and stuff RLC-15
- How they (dogs) need humans and we need then RLC-16
- What dogs is good for what person RLC-17

FEELINGS ABOUT THE COURSE (FAC)

- Likes it FAC-1
- Likes learning about animals FAC-2
- Likes the course FAC-3
- Thought he was not going to like it FAC-4
- Started getting better when the course stated FAC-5
- Was worried about reading about dogs FAC-6
- Really cool FAC-7
- Helping me out a lot with my dog FAC-8
- Likes it FAC-9
- Excited about it FAC-10
- Learning different things about dogs (recall of content) FAC-11
- Likes the class because it helps her FAC-12
- the class is "helping me understand" FAC-13

- learning new things about dogs FAC-14
- Not interested in dogs , but learning about new things FAC-15
- Likes the course FAC-16
- Likes learning about dogs FAC-17
- Has lots of animals and it is interesting FAC-18
- Helping her understand better FAC-19
- Likes it FAC-20
- Likes reading about dogs and stuff FAC-21
- Loves dogs FAC-22
- We learn a lot of new things about dogs FAC-23
- Learning new things FAC-24
- Like the stories FAC-25
- Likes the course because she has lots of animals FAC-26
- Text is not hard, just some vocabulary FAC-27
- Sometimes gets stuck on words (vocabulary) and thinks this makes the texts sometimes hard FAC-28
- Finds some of it hard (vocabulary) FAC-29
- Stop on a word you can't understand FAC-30
- Learning different types of words and different definitions FAC-31
- Identified text to world and said he was learning that FAC-32

CONTENT AREAS IDENTIFED (CAI)

- Science CAI-1
- History CAI-2
- Money (MATH) CAI-3
- Checkbook (MATH) CAI-4
- Conduction, convection, and radiation (SCIENCE) CAI-5

- See heat waves over the hood of a car (SCIENCE) CAI-6
- Went back to my notes and I understood it (science) CAI-7
- Uses it in history CAI-8
- Related wwII to remembering about his grandpa (HISTORY) CAI-9
- Boston tea party to visiting Boston CAI-10
- Uses it in history CAI-11
- Connects history to something in the world CAI-12
- History, I guess CAI-13
- Uses it in history gives example of the elections and seeing it on the news and in the newspaper CAI-14
- Gave example of George Washington was the first one to admit his mistakes and now bush was doing it. (History teacher modeled this) CAI-15
- Does not make connections when he reads his history book CAI-16
- In some of the classes he makes connections CAI-17

- Don't really make connections in classes other than reading CAI-18
- Makes connections when reading a textbook CAI-19
- History teacher makes his own connections in class while teaching CAI-20
- Revisited notes in science to do answer a review CAI-21

- Teachers do not ask questions for connections PWN-1
- Don't have opportunities to discuss the connections they make in other classes PWN-2
- Teacher in other courses do not give her many opportunities to discuss her connections PWN-3
- They don't ask the student to make connections PWN-4
- History teacher does not give the students the chance to flip back to information they have previously read PWN-5

PERCIEVED REASONS WHY NOT CONNECTING IN CONTENT AREAS (PWN)

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