

ABSTRACT

Title of Dissertation: HOW SEVENTH GRADE READERS WHO COMPLETED AN INTENSIVE PHONICS INTERVENTION PROGRAM IN SIXTH GRADE COMPREHEND INFORMATIONAL TEXT

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The purpose of this study was to explore the processes by which seventh grade readers who completed an intensive phonics intervention program in sixth grade comprehend informational text. The informational text chosen for this study was a social studies passage from a seventh grade textbook. Completion of a phonics intervention program presumes an improvement in automaticity, a foundational reading skill characterized by the ability to read with speed and accuracy. Multiple case studies were the overall approach to inquiry and data gathering. With the assistance of a middle school reading specialist informant, the researcher invited the participation of five seventh grade students reflecting a variation in race and gender who were performing below grade level on reading assessments at the beginning of grade six, and who completed an intensive phonics intervention program by the end of grade six. Data collection included administration of an Informal Reading Inventory (IRI) graded word list, reading interest and reading behavior surveys,

interviews and observations of students, read and think aloud sessions, an informal comprehension check, and a brief paragraph written by the students to indicate how they saw themselves as readers.

The study results suggest that a structured and sequential phonics intervention program holds the promise of improved reading automaticity (the ability to read with speed and accuracy). Reading with speed did not guarantee comprehension. Automaticity was hindered and comprehension affected when students encountered multisyllabic words that were not easily decoded. The five students in this study were able to summarize, paraphrase, infer, predict, interpret, and question marked segments of the text with varying degrees of accuracy, but they were generally unable to demonstrate understanding of the broader ideas and concepts of the selection. Students expressed that they knew comprehension had failed. They did not have the means to repair their comprehension. For these students, explicit comprehension monitoring strategy instruction in addition to a phonics intervention program remains an important component of the reading program.

HOW SEVENTH GRADE READERS WHO COMPLETED AN INTENSIVE
PHONICS INTERVENTION PROGRAM IN SIXTH GRADE COMPREHEND
INFORMATIONAL TEXT

by

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Dedication

To my husband for his unwavering encouragement

To my daughter and son-in-law for their interest and empathy

In remembrance of my constant canine companion for his steadfastness during a decade of study

And to the loving memory of my parents, Sara and Herman Rent, who valued education

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TABLE OF CONTENTS

List of Tables.....	vi
Chapter 1: The Problem.....	1
Overview.....	1
Topic and Purpose.....	4
Significance of the Study.....	6
Theoretical Framework.....	7
Metacognition.....	7
Self-efficacy.....	8
Automaticity.....	9
Limitations.....	10
Transferability.....	10
Materials.....	10
Time.....	10
Sample.....	10
Bias.....	11
Chapter II: Review of Related Literature.....	12
Reading Comprehension.....	12
Phonics and the Phonics Intervention Program.....	13
Related Research.....	15
Phonics intervention programs and reading comprehension.....	15
Strategies instruction and metacognition.....	17
Metacognition and comprehension monitoring.....	22
Strategies instruction and self-efficacy.....	24
Theoretical Traditions.....	25
Automaticity.....	25
Self-efficacy.....	27
Metacognition.....	29
Summary.....	30
Chapter III: Design and Methodology.....	32
Overall Approach and Rationale.....	32
Site and Population Selection.....	32
Testing criteria for study participation.....	37
Test descriptions.....	38
Intensive phonics program in this study.....	39
Data-gathering Methods.....	41
Data Gathering Procedures.....	42
Session I.....	42
Session II.....	43
Session III.....	49
Surveys.....	49
Data Analysis Procedures.....	51

Research Perspectives	54
Validity and Reliability	55
Trustworthiness	55
Credibility	56
Transferability	56
Dependability	57
Confirmability	57
Ethical and Political Considerations	57
 Chapter IV: Results	59
Parents' Night	59
Session I: Introduction and prior knowledge	61
Written response for each student	62
Prior knowledge	63
Session II: Read and Think Aloud, Comprehension Check, and	
Interview	65
Read and think aloud	65
Comprehension check	67
Interview	68
Session III: Member Check	70
Reading rate	71
Reading surveys	73
Case Studies	74
Roy	74
Thomas	80
Ivy	84
Victor	90
Eva	95
 Chapter V: Discussion	100
General Findings	100
Theoretical Connections	104
Automaticity: reading with fluency	105
Metacognition: thinking about thinking	107
Self-efficacy: I think I can	108
Conclusions	109
Recommendations	113
Instructional Implications	113
Research Implications	115
Summary	117
 Appendices	118
Appendix A: Theoretical Concept Map for Study	118
Appendix B: Research Timeline	119
Appendix C: Reading Behaviors Survey	120
Appendix D: Reading Interest Survey	123

Appendix E: Comprehension Check.....	125
Appendix F: Questions for Semi-Structured Interview.....	126
Appendix G: Member Check Results.....	127
Appendix H: Reading Behaviors Survey Results.....	129
Appendix I: Reading Interest Survey Results.....	130
Appendix J: Pilot Study.....	132
References.....	144

LIST OF TABLES

Table 1: Student Group Representation in the Phonics Intervention Program34

Table 2: Data for Students in the Study Sample40

Table 3: Data-Gathering Process Summary.....50

Table 4: Analysis of Data53

Table 5: Results of the Stieglitz Grade Words in Isolation Test Part A62

Table 6: Results of Likert Scale-Self-Report on How Well Students Read63

Table 7: Summary of Prior Knowledge of Latin America64

Table 8: Summary of Substitution Miscues: Similarity to Actual Word.....66

Table 9: Comprehension Check Results67

Table 10: Emerging Patterns from the Interview Following the Read Aloud Session68

Table 11: Recall of Information.....70

Table 12: Words Read per Minute..... 72

Chapter I

THE PROBLEM

Overview

Students who enter school with delayed development in phonological skill are at risk for reading difficulties. When these difficulties persist without intervention, students continue to lag behind peers resulting in older students with poor reading skills (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996). Children with word level reading problems require interventions that must contain powerful instruction and effective practice. Many interventions are available, but a review of early intervention research using wide samples of children concluded that the most successful programs to date have included systematic instruction to help children learn to decode words in print (Wasik & Slavin, 1993). The National Reading Panel (NICHD, 2000) provided the research basis for the No Child Left Behind initiative and concluded that systematic phonics instruction is a greater contributor to students' growth in reading than nonsystematic alternative programs or no phonics programs. The Panel determined that effective reading instruction includes teaching children to break apart and manipulate sounds in words (phonemic awareness), teaching students the sounds represented by letters that can be blended together to form words (phonics), allowing students to practice what they have learned by reading aloud with guidance and feedback (guided oral reading), and teaching students to apply strategies to improve reading comprehension.

Systematic and explicit phonics intervention programs are intended to lead the participants to automaticity in reading. Automaticity is the ability to perform complex skills, such as reading, with minimal attention to conscious effort. Attention freed by the

attainment of automaticity can focus on comprehension of word meaning. LaBerge and Samuels (1974) developed an automaticity model that has widely influenced contemporary research in reading. They argued that automaticity is absolutely necessary and should be the instructional goal in teaching children how to read. Examples of automaticity in reading include rapid sight word reading, the ability to translate letters to sounds to words fluently, and decoding with ease so that there is no conscious attention required, allowing the reader to attend to comprehension and meaning of text. The nonautomatic reader who must concentrate on identifying words has difficulty attending to their larger meaning. Once automaticity has been achieved, the reading process can move forward quickly, accurately, and effectively with comprehension. Improved decoding skills provide the possibility for readers to give more attention to the text message, resulting in better reading comprehension (Eldredge, Quinn, & Butterfield, 1990).

The theory of automaticity proposed by LaBerge and Samuels (1974) evolved to include an implementation of fluency instruction wherein cognitive resources can be directed toward the text comprehension (Samuels, Ediger, & Fautsch- Patridge, 2005). The focus of the integration of fluency and comprehension came about because of the common occurrence of a reader who decodes a passage with speed and accuracy (automaticity) but is unable to simultaneously comprehend what was read. Such a reader is not considered a fluent reader. Rasinski (2006) outlines a view of reading instruction that includes accuracy, automaticity (rate), prosody (expression as an aspect of fluency), and comprehension. He argues for a broader approach and suggests that students in

programs that focus on automaticity, or reading rate, may perseverate on reading faster without giving equal thought to the importance of comprehension.

When students who are effective readers can decode automatically, they employ strategies (cognitive tools) to assist them in making sense of the text. A strategy is a sequence of cognitive steps to accomplish a specific goal. Strategies are generally more complex than skills because they require the orchestration of several skills. Effective instruction links comprehension skills to strategies to promote strategic reading (Swanson, 1999). Many strategies used by good readers are acquired while some are learned (Pritchard, 1990). Good readers selectively and flexibly apply a variety of strategies to every reading situation (Pressley, 1995). In contrast, students who struggle with reading typically lack control over the reading process. These students use fewer strategies, and their strategy use tends to be rigid rather than flexible.

Knowledge of reading strategies and their application (metacognition) are particularly important when students transition from predominantly narrative text to informational text in the content areas. This shift in reading focus generally occurs when students leave elementary school following grade five and enter middle school at grade six. Good readers tend to make this transition easily, applying learned or acquired strategies appropriately, while less able students struggle.

There is little research on how automaticity gained through an intensive phonics program affects reading comprehension at the upper elementary and middle school grades. More often, the intensive phonics programs are offered at the early elementary grades to improve student reading at a younger age. As more students enter the middle school grades with reading deficiencies, however, the intensive phonics intervention

program becomes a tool in training the older reader to break the code of reading through explicit and systematic phonics instruction so that the student can become a proficient reader.

We do not know how comprehension strategies are impacted after students had earlier training in a systematic and explicit phonics intervention program that is intended to result in automaticity. We are not sure how intense phonics training impacts student understanding of informational texts.

Topic and Purpose

This study closely examines a segment of comprehension, the use of reading enabling and comprehension monitoring strategies by seventh grade readers who have completed an intensive phonics intervention program in sixth grade, as they read informational text. The intensive phonics program completed by students in this study offers structured and sequential instruction in phonemic awareness, phonemic decoding, spelling, reading fluency, reading comprehension, and writing. It is designed for students who struggle with the sound-symbol relationship. Instruction is provided in small groups of three to five students and occurs daily for 45 minutes. The entire program consists of a series of 130 highly structured lessons designed to develop mastery of phonemic awareness and phonics skills. The successful completion of such a program assumes that the student will have attained automaticity as a result of participation in the program. In addition to the intensive phonics intervention program, students take reading as a separate subject in sixth, seventh, and eighth grades in this school system. The reading curriculum includes explicit instructional strategies that focus the reader on text comprehension before, during, and after reading text. Students participating in the intervention in this

study are exposed to an explicit decoding program that contains limited comprehension instruction and comprehension strategy instruction.

My purpose in conducting the study was to examine construction of meaning of grade-level informational text by seventh grade readers who completed an intensive phonics program. These students were considered to possess the ability to utilize automaticity as a result of completion of the program. An automatic reader is one who is able to apply the skill that was taught in the phonics intervention program (break the word apart, sound it out, and put it together again) with speed and accuracy that results in the rapid decoding of previously unknown or unfamiliar text. The study was also designed to investigate the reading enabling and comprehension monitoring strategies applied by students during the reading process, especially when comprehension broke down.

The question guiding my research is: How do seventh grade readers who completed an intensive phonics intervention program in sixth grade comprehend informational text?

Subordinate questions are:

1. What comprehension strategies do students who have completed an intensive phonics intervention program use when reading informational text?
2. How do students describe the comprehension strategies applied to informational (social studies) text?
3. How do students describe their attitudes toward reading and self after completing an intensive phonics intervention program?

Significance of the Study

Informational text has the function of conveying information about the natural or social world and has particular features such as graphic devices and text structures. (Duke, 2002). While informational text is categorized as a broad range of text, there are areas that are not entirely informational. These parts of the text may be highly interpretive. Reading history text requires critical reading abilities that include verifying accounts before drawing conclusions and questioning the claims that are made by the text (VanSledright, 2004). Academic achievement depends on the ability to read, comprehend, and extract information from informational text. Readers must construct and revise summaries of what they have read, integrate their prior knowledge, monitor their understanding, and determine the meaning of unfamiliar words and concepts in order to successfully comprehend informational text. Slater (2004) suggested that there is a need to focus research on the effects of teaching individual strategies and groups of strategies. A better understanding of strategy use by students who have completed an intensive phonics program in their first year of middle school (grade six) may inform and focus instructional practices when informational text is used. Since middle school students typically read more informational text at the secondary level, the students' comprehension of informational text becomes more critical, and that is why informational text has been selected as the text used in this study. What is more important is to know how the popular idea of providing students more skills in intensive phonics instruction might impact a reader who must gain meaning from informational classroom texts. Finally, it is insightful to understand how readers themselves view the reading process

and their abilities after being identified to receive directed and specific training and what their own reading processes reveal about their fluency and automaticity.

Theoretical Framework

This study draws from the theoretical frameworks of metacognition or cognitive theory, automaticity theory, and self-efficacy theory.

Metacognition.

Cognitive theory focuses on the gradual acquisition of knowledge. Metacognition is an important concept in cognitive theory. It plays a major role in reading comprehension because it involves both the conscious awareness and the conscious control of one's learning. When students are aware of their thinking processes, they exert control over them. Metacognition consists of two basic processes occurring simultaneously when reading to learn: readers monitor their progress as they read and make changes and adapt strategies if they perceive that they are not doing so well (Winn & Snyder, 1996).

Metacognition involves a triad of knowledges introduced by Paris, Lipson, and Wixson (1983). These knowledges are declarative (knowing what), procedural (knowing how), and conditional (knowing when and why). Conditional knowledge most directly supports the metacognitive approach to teaching explicit strategies because it is this knowledge that enables the student to select and apply the strategies that have been taught to the appropriate situation (Paris, Lipson, & Wixson, 1983). Strategy instruction assumes that students should know when comprehension fails so that they will select strategies that will help them make meaning. In other words, the student must have both the will and the skill to use strategies (Paris, Lipson, & Wixson, 1983). Students who

completed the phonics program in addition to reading class instruction may have developed some degree of metacognition and self-regulation that improve comprehension.

When students take control of their learning through reading, they are considered to be self-regulated. Self-regulated learning assumes that students actively control their own processing abilities (Pressley & Afflerbach, 1995). Metacognitively, good readers are assumed to employ a range of strategies and thoughtfully monitor and revise their strategies to progress towards instructional goals. Affectively, good readers are characterized as intrinsically motivated, task-oriented, and in control of emotional difficulties. These components of self-regulation have been linked to academic success.

Metacognition is important to this study because this study examines the ability of students who have achieved a level of reading automaticity through completion of a phonics intervention program to actively monitor comprehension when reading grade-level informational text. Completion of a phonics intervention program heightens awareness of sounds and syllables of words for decoding purposes. At the word level, students must choose to apply strategies to decode unknown and unfamiliar words. They must simultaneously apply comprehension strategies to understand the text.

Self-efficacy.

Self-regulation is correlated with self-efficacy, intrinsic motivation, and expectations of success (Schunk, 1994; Wigfield, 1994). Self-efficacy refers to the beliefs concerning one's capabilities to learn or perform behaviors at designated levels. Self-efficacy affects choice of activities, effort expenditure, persistence, and achievement and has been found to be an important variable in educational settings that influences

student learning (Schunk, 1987). Characteristics associated with self-efficacy play an important role in how readers approach informational texts. Good readers exhibit self-efficacy when they believe themselves to be good readers. This study provides insights on the role of intensive phonics intervention programs in developing the self-efficacy of readers of informational texts.

Automaticity.

The LaBerge and Samuels (1974) automaticity model of the reading process assumes that attention is used in decoding and in comprehension. Lack of automatic decoding is a common problem leading to reading difficulty. For example, if the decoding task consumes all the available attention, then there will not be enough attention to use for comprehension. Students must get beyond accuracy to automaticity, which is a combination of speed and accuracy and is considered to be a prerequisite for skilled reading. Automatic decoding results from continued practice. This type of practice is offered in an intensive phonics program. Once automaticity has been achieved, readers can attend more effectively to comprehension. Readers then have the opportunity to be fluent readers, where automaticity and comprehension occur at the same time. This ability to decode automatically and comprehend simultaneously is referred to as reading fluency (Samuels, Ediger, & Fautsch-Patridge, 2005). Speed, accuracy, and oral reading expression, or prosody, become indicators of fluency (Samuels, Ediger, & Fautsch-Patridge, 2005). Fluent reading supports comprehension and is necessary for understanding informational texts.

Limitations

Transferability.

The limitations of the study are related to transferability. Transferability, as an aspect of trustworthiness, refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings (Research Methods Knowledge Base: *Qualitative Validity*, retrieved July 23, 2007). The transferability of this study will be somewhat limited because only five readers are investigated.

Materials.

The students in the study read a short selection from a typical seventh grade social studies textbook. The length of this selection, five pages, may not reflect the length of selections that students are asked to read in a classroom setting.

Time.

The study may be limited by time with students. It was my intent not to take students from academic subjects, and parents/guardians were informed of this plan. I was able to keep my time with the students to the 90 minutes that I had indicated in the letter of consent to parents/guardians. Each of the three sessions lasted approximately 30 minutes.

Sample.

I used purposeful sampling, which is appropriate for qualitative research (Maxwell, 1996, p. 70). In purposeful sampling, the settings and persons are selected deliberately in order to provide information that could not be gotten under other circumstances. The results of this study are limited in scope due to the small size of the sample.

Bias.

The experiences of the researcher affect the design, implementation, and interpretation of the study. As a former middle school reading teacher, my encounters with middle school students in reading class prompted me to investigate this transitional period as students interact more frequently with informational text. This investigation stems from my observations and perceptions about the strategies that seventh grade students apply to informational text in their efforts to construct meaning.

Chapter II

REVIEW OF RELATED LITERATURE

Reading Comprehension

The RAND Reading Study Group (2002) defined reading comprehension “...as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (p. 11). The dynamics between readers who are attempting to comprehend the text and the activity in which comprehension is to occur are explained in this report. Readers bring knowledge, experience, and abilities to the act of comprehending text. The nature of comprehension is influenced by purposes, consequences, and processes that are part of the act of reading.

Comprehension of informational text (factual, nonfiction, or expository text) represents the majority of reading that is expected of middle school students in content areas and contains many text features, such as photos, tables, charts, and bold print, from which students must extract meaning. Text features have a large effect on comprehension (RAND Reading Study Group, 2002). The vocabulary load and discourse style of informational text can prevent comprehension from fully occurring when the reader’s knowledge and experience do not match the demands of the text.

A grade level social studies textbook was used in this study. The topic provided a history of Latin America and its relations with the United States. The State Department of Education for the school system in which the study took place identifies text as informational or literary. The textbook falls into the informational category. However, there are areas of the text that are interpretive and require students to read critically in order to fully comprehend its meaning. Embedding diverse text such as poems, personal

letters, etc., into history textbooks is a recent trend to promote engagement. Afflerbach and VanSledright (2001) indicate that improved abilities to read history text may contribute to students' ability to read critically and that a better understanding of the challenges students encounter when reading history text are needed to support critical reading in history classrooms.

Efficient readers must have quick and efficient word recognition (automaticity) and expressive (prosodic) reading that suggest an understanding of the text. When students complete an intensive phonics intervention program that is structured and sequential and offered on a regularly scheduled basis, their ability to decode should be markedly improved resulting in a more fluent reader.

Rapidly associating letters with sounds and letter patterns with words alone, however, does not equal comprehension. Comprehension occurs when connections of new information are linked to old information and existing informational structures. Comprehension is manifested through the activation of prior knowledge, prediction, drawing inferences, monitoring understanding, and interpretation (Wolf, 2007). To read with comprehension the brain must be fast enough to associate letters and sounds with accuracy (automaticity), but it must also be fast enough to make decisions while reading the text (metacognition). Self-efficacy is the motivation to engage in the act of reading.

Phonics and the Phonics Intervention Program

Phonics has been a foundational aspect of reading instruction and provides the awareness of the sound-symbol relationship. It is seen as an important decoding tool that students can use when encountering unfamiliar words. Phonics intervention programs remain a potent tool for teaching students to decode. It is often the basis for intervention

when students have demonstrated through assessment that they are not reading well. Generally, these students would be reading below grade level. The goal of these intervention programs is to enable students to “crack the code” when encountering unfamiliar text. Phonics programs teach the sounds of letters explicitly and allow time for repetition and practice. A systematic phonics program teaches a planned sequence of phonics elements that includes conversion of letters (graphemes) into sounds (phonemes) and then blends these sounds into recognizable and comprehensible words.

Systematic phonics instruction has become a national debate and has played a role in recent political initiatives. The National Reading Panel Report (NICHD, 2000) reviewed 66 treatment-control group comparisons and concluded that systematic phonics instruction was a greater contributor to students’ reading growth than nonsystematic alternative programs. Systematic phonics was found to be most effective in tutoring sessions, small groups, or whole class. The phonics intervention program in this study was composed of 130 sequenced and scripted lessons presented in three phases. Repetitions of sounds and manipulatives in the form of groupings of cards were used to build and increase reading rate. Students were taught to break the word apart, sound it out, and blend it back together. The teacher informant advised that although this process was taught, she did not feel that it was overemphasized in the program.

Although speed of reading and automaticity, or quick word recognition, were the goals of the program, there was a comprehension component in which students read easy books and chapter books to practice the decoding skill. Additionally, there was a writing component in which students responded to questions about the texts in their notebooks. Instructors of the program kept regular records of student progress in the areas of word

attack, word identification, and passage comprehension. Students met with the teacher for 45 minutes daily during a nonacademic period that was provided in the schedule each day. The teacher informant indicated that more than one lesson could be provided in the 45 minute period. In addition to the phonics intervention program, students also took their regularly scheduled reading class, which included explicit comprehension strategy instruction in the curriculum.

Related Research

Phonics intervention programs and reading comprehension.

I have found three studies related to my topic that measure comprehension with pre and post tests; however, I have found no study that provides an in-depth examination of the means by which seventh grade readers construct meaning from informational text following participation in an intensive phonics program. Only one of the studies has a sample reflective of middle or high school students. Phonics intervention programs have a limited body of knowledge at the secondary (middle and high school level) because phonics intervention is typically featured in elementary school settings. As students in middle and high school grades enter school with deficit reading skills, the need to address the decoding issue through phonics becomes evident.

In the first related study, Rashotte, MacPhee, and Torgesen (2001) examined the overall effects of this same phonics intervention program used by the school system in this study. Their study was designed to determine the effectiveness of a phonologically based reading program delivered to poor readers in small groups of three to five from multiple grades over an eight-week period. They identified 116 students with deficient reading skills in first through sixth grade. These students had difficulty with word level

reading skills. Students in the treatment condition received group instruction that was comprised of 140 lessons delivered in three phases. Results indicated that a phonologically based reading program can significantly impact the phonetic and word-level reading skills as well as the reading comprehension skills of deficient readers in first through sixth grade. The group that received 35 hours of instruction in the phonics intervention program performed significantly better than a no-treatment control group in the areas of phonological awareness, decoding, reading accuracy, comprehension, and spelling. Growth in phonetic decoding and phonological awareness were strong across all grade levels. There was also a positive growth in reading comprehension over eight weeks. The phonics program in this study closely resembled the phonics program in my study. The study took place over a shorter period of time, but showed the promise of improved decoding and reading comprehension following participation in the program.

The second study by Eldredge, Quinn, and Butterfield (1990) examined the relationship between phonics, reading comprehension and vocabulary in a sample of second grade students. They hypothesized that phonics knowledge would influence reading comprehension, but they did not suggest that similar results would occur at higher grades. A limitation of the study was that the researchers could not control the environments in which the second grade students learned to read. The students were taught in various groups using a variety of instructional materials. Phonics achievement was measured using a multiple-choice group-administered test developed by one of the authors. The test was administered in September and May. Findings indicated that phonics knowledge was a cause of higher scores on reading comprehension and vocabulary tests and that reading comprehension caused growth in general vocabulary

knowledge. The findings were consistent with other comparisons of initial reading approaches in that explicit phonics instruction seemed to be superior to implicit phonics instruction.

The third study reported the effects of an intensive reading intervention program over a four to eight week period on decoding skills of high school students with reading deficits (Woodruff, Schumaker, & Deshler, 2002). Students in the study were ninth graders who were at risk of failure or had learning disabilities. Subjects were given intensive small group instruction in the Word Identification Strategy, a learning strategy for decoding multisyllabic words. Students in the control group received traditional reading instruction. The experimental group showed gains of 3.9 grade levels in reading decoding skills. The results indicated that an intensive decoding program can produce positive gains in older students.

The Rashotte, MacPhee, and Torgesen (2001) and the Woodruff, Schumaker, and Deshler (2002) studies provide a basis for my study in that they supply a connection between an intense phonics intervention program and comprehension. Rashotte et al. (2001) studied a phonological awareness training intervention program. Phonological awareness training typically does not affect comprehension (Snow, Burns, & Griffin, 1998); however, this phonics intervention program included text reading and comprehension as an integral part of each session that may have contributed to the positive comprehension results (Rashotte et al., 2001).

Strategies instruction and metacognition.

Many reader educators as well as the general public believe that phonics intervention is a necessity in helping readers who experience difficulty to become more

efficient. However, research about explicit phonics instruction in relation to metacognitive strategy use and comprehension has been rather contentious resulting in ambiguous results. In this section, I review studies that support explicit strategy instruction and examine its impact on reading comprehension.

Learning strategies are systematic plans that assist encoding of information and task performance (Paris, Cross, & Lipson, 1984). Strategy instruction is also an effective means of promoting self-efficacy (Corno & Mandinach, 1983). Research shows that students with strategic deficiencies can benefit from explicit training on reading strategies (Paris, Cross, & Lipson, 1984; Raphael & McKinney, 1983; Schunk & Rice, 1992). For example, Schunk and Rice (1992) conducted two experiments using a sample of fourth and fifth grade remedial readers to investigate the effects of sources of strategy information. They found that students who received strategy-value feedback and strategy-modification instruction demonstrated the highest strategy use and self-efficacy. Their study results supported the idea that struggling readers benefit from learning about strategy usefulness.

Once the strategies are taught, there remains the question of which ones will actually be applied. An investigation by Wingenbach (1982) examined the reading comprehension processes of gifted readers in grades four, five, six, and seven. She wanted to know the type of comprehension strategies gifted readers use; the awareness level of the selection and use of comprehension strategies; and the differences in awareness, use, and selection of cognitive strategies among gifted students in grades four, five, six, and seven. Successful readers are perceived as actively contributing to and controlling the reading process to achieve comprehension that is indicative of

metacognition. The researcher used the results of the Iowa Tests of Basic Skills Reading Comprehension subtest, a standardized instrument, to establish the basis for selection of 20 students of the 100 tested for participation in the protocol analysis and interview segments of the study. A metacognition questionnaire was used to provide individual and group measures in response to questions about the use of reading and reasoning strategies. Similarly, my study used results from the Degrees of Reading Power (DRP) Test and the State School Assessment to identify students for the study. Additionally, reading behavior and reading interest surveys were reviewed to learn what students know about strategy use as they read.

Wingenbach (1982) applied ethnographic techniques to the study. The protocol analysis procedure that was employed allowed for observation of the reader applying the reading process in a “real” situation. The tape of each protocol analysis was examined to identify, from the subject’s description, those protocols or strategies employed in the reading process. This analysis enabled the researcher to *see* the students’ reading processes in action, allowed for close exploration of methods employed to process print, and provided the opportunity to observe and analyze the process while it was being applied.

The researcher then continued the assessment of the reading process from the participant’s perspective with an interview. The interview provided the researcher and the subject with the format for joint discussion and analysis of the individual method of processing print. The protocol analysis procedure and the interview allowed the researcher to examine the reading comprehension process as it was being applied and to discuss and explore the individual’s perspective of the process. These two procedures

confirmed the use of specific reading comprehension strategies, indicated a metacognitive awareness on the part of the reader of available strategies, their use in reading comprehension and answer selection, and indicated the lack of much difference between grade levels in actual use of strategies. The outcome of the study confirmed that students were aware of strategies, why they were used, and if the specific strategy was or was not effective. In terms of frequency of use, the top five reading strategies were: personal identification; use of context, synonym substitution, stated failure to understand a word; and rereading.

Strategy instruction does not necessarily ensure that students will continue to use the strategy when no longer required to do so (Kramer & Engle, 1981). Failure to employ a strategy may result partly from the belief that, although the strategy is useful, it is not as important for success as are such factors as time available or effort expended (Fabricius & Hagen, 1984). This idea became evident in Kletzien's study (1991) when she examined strategy use by good and poor comprehenders reading expository text of differing levels. Kletzien's sample consisted of 48 high school students of average ability who were half good comprehenders and half poor comprehenders. They read three informational passages of increasing difficulty. Students were asked to fill blanks in each passage that were left by randomly deleting 12 context-dependent content words. Then, students were asked to explain their reasoning process for these cloze responses, and the explanations were analyzed to identify their comprehension strategies. Kletzien found that the two groups used the same type and number of strategies on the easy passage, but as the passage difficulty increased, good comprehenders used more types of strategies and used strategies more often than did the poor comprehenders. All subjects indicated

knowledge of a wide variety of strategies; however, the pattern of strategy use in their self-reports indicated that they relied heavily on only a few of these strategies for all three reading difficulty levels. The researcher concluded that readers repeatedly utilized strategies with which they had a comfort level and did not spontaneously try other strategies that they might have known and that may have been effective (Kletzien, 1991).

Agnew (1998), a community college developmental reading teacher, wanted to learn about the students' response to a developmental reading strategies course that she was teaching using chapters from required core courses of psychology, sociology, history, and biology. At the end of the course, students were asked to list the strategies learned that they intended to use in future college classes. Agnew attempted to learn the reasoning behind strategy choice by asking students to list the most and least useful material taught in the class, and to tell why. The researcher reported that although most of the responses were positive, several students wrote that they should have learned fewer strategies with more practice. The researcher concluded from questionnaire results that students who learned 14 reading and study strategies tended to use the most basic of those in core courses. Agnew reasoned that poor students, when given a choice of reading the book or listening, will choose listening, and that instructors should be spending time teaching listening skills as well as reading skills. The results reflected self-efficacy and attribution theory in that the poor students chose to listen to the book (the less difficult strategy) instead of reading the book to construct meaning.

The questionnaire in Agnew's study (1998) listed such strategies as marking text, vocabulary cards, previewing, and outlining, among others, with the majority of students indicating that they marked the text as a strategy. Paris, Lipson, and Wixson (1983)

concluded that students must have more than the skill of strategy use; they must be motivated to use the strategies. Many of Agnew's students had competing forces in their lives that detracted from their ability to study and to regularly attend college classes, and they were unmotivated as a result. In my study, it was necessary for students to apply strategies without teacher direction, and there was a presumption on my part that they would be motivated to do so.

As demonstrated by the Agnew study (1998), the questionnaire/survey appears to be a viable means of obtaining information regarding strategy use. The questionnaire alone does not provide the reasons why the students selected the particular strategies. An interview and think aloud were more telling regarding strategy selection.

Metacognition and comprehension monitoring.

Comprehension is the desired outcome of all reading, and metacognitive awareness is characteristic of good comprehenders (McLain, 1991). Metacognitive awareness and comprehension were correlated in studies by McLain (1991) and Spence, Yore, and Williams (1999). McLain looked at the effects of instruction versus no instruction of comprehension monitoring strategies on the metacognitive awareness and reading achievement of third and fifth grade students. The 57 fifth grade students and 51 third grade students from six intact classrooms had one experimental group that was taught the K-W-L (What I know, What I want to know, What I want to learn) comprehension monitoring strategy, a self-questioning, three-step procedure where students fill out a strategy sheet prior to and immediately following their reading. The other experimental group was taught the predicting/evaluating comprehension monitoring

strategy, a checklist strategy where students check off questions that assess their predictions after reading. The control group was given no comprehension instruction. This study concluded that the effectiveness of teaching comprehension strategies on metacognitive awareness and reading achievement is questionable. Some students who received no comprehension monitoring strategy instruction outperformed those who had the instruction. The researcher raised the question: Does strategy instruction teach students to be better readers or just to be better at using strategies?

In contrast to studies that support strategy instruction to improve reading comprehension, the results of the McLain (1991) study indicated that strategy instruction did not teach students to be better readers. Another outcome of this study was that females outperformed males and fifth graders outperformed third graders. Importantly, this study illustrated the necessity to have both genders equally represented in my study.

In a similar correlation study between metacognition and comprehension, Spence, Yore, and Williams (1999) investigated the effects of reading ability and gender on the acquisition of metacognition and science reading comprehension among seventh graders. The researchers focused on the explicitly taught strategies of surface text structure and organization; accessing prior knowledge, setting purpose, and monitoring comprehension; understanding word meaning through context; identifying main ideas, and summarizing text. Analysis of pre- and post-test scores on metacognitive surveys and comprehension tasks indicated significant correlations between metacognitive awareness and comprehension success and between metacognitive self-management and comprehension success. Pretest results revealed significant differences between performances of lower ability students and their higher ability counterparts and between

genders where females performed better than males. After explicit strategy instruction, the differences between these groups remained but were reduced. A limitation of this study was its small sample size of 27 students that restrained the generalizability of the results. This study's emphasis on explicitly taught strategies supports foundational assumptions of my study that students will apply strategies that are known to them to informational text.

Strategies instruction and self-efficacy.

The studies discussed have investigated the effect of explicit strategy instruction on comprehension as it relates to metacognition. In addition to metacognitive learning theory, my research is based in part on self-efficacy theory as it affects strategy choice. Strategy instruction is an effective means of promoting self-efficacy (Corno & Mandinach, 1983). Goetz and Palmer (1984) made the connection between strategy use and self-efficacy theory in their study of 224 "at risk" college students enrolled in a study methods course. Informational text of 600 words in length was used, and a list of 24 study strategies was developed and organized into pre, during, and post reading strategies. Students were asked to rate each of the 24 strategies on a variety of attributionally-related factors; they were asked how much intelligence, effort, industriousness, prior instruction in the strategy, and knowledge of text content would be required to effectively use each of the strategies; how much they knew about using the strategies effectively; the level of difficulty of text for which each would be appropriate; and how beneficial the use of each would be for understanding texts like the one they had read. The results indicated strategy use was high with about eight strategies used per student. Rereading was the most commonly used strategy.

The researchers claimed that this study represented the most extensive investigation of attribution and metacognitive determinants of strategy use. They found that students' personal attributes did not affect perceived strategy efficacy. Students' perception of general strategy knowledge and specific strategy attributes did affect strategy efficacy, as did the match between personal and strategy attributes. Generally, there appears to be a dependence on the nature of the learner, the task, and the strategy.

Theoretical Traditions

This study draws upon the theoretical traditions of automaticity theory, self-efficacy theory, and metacognitive theory. The purpose of this study was to examine the means by which seventh grade students comprehend informational text after they completed an intensive phonics intervention program in sixth grade. This study was based on the premise that students will be motivated through improved self-efficacy to apply their newly acquired automatic reading ability combined with comprehension monitoring strategies obtained through the curriculum of their reading course to construct meaning from informational text.

Automaticity.

LaBerge and Samuels (1974) developed an automaticity model that has widely influenced contemporary research in reading. Automaticity, defined as rapid, accurate recognition, is considered a necessity as well as an instructional goal for teaching students to read. It might be thought of as the ability to perform complex skills with minimal effort and attention (Samuels & Flor, 1997). An example of a skill that requires automaticity is driving a car. The beginning driver must focus on the mechanical aspects of driving and must concentrate (Samuels & Flor, 1997). Once driving the car is

mastered, the driver's attention is freed to engage in other tasks while driving, like listening to the radio or engaging in conversation, or in these times of technical advancement, talking on the cell phone.

In much the same way as beginning drivers focus on the task at hand, beginning readers focus on decoding new words, leaving little attentional energy for comprehension. When decoding becomes automatic, students will be able to decode and comprehend simultaneously, placing fewer demands on memory. Samuels, LaBerge, and Brener (1978) found that the unit of word recognition for beginning readers was the letter, which has no meaning as a single unit; however, for skilled readers, the unit was the word, which has meaning. Automaticity in decoding written text can be considered a memory phenomenon in which large, meaningful words are held in short-term memory (Samuels & Flor, 1997).

Automaticity is decoding effortlessly, but fluency is the ability to decode with speed and accuracy (automaticity) and comprehend at the same time (Samuels, Ediger, & Fautsch-Patridge, 2005). Another component of fluency is meaningful oral reading expression that is known as prosody. Prosody is taught through modeling, performance, focus on phrasing, and explicit appropriate intonation (Rasinski, 2006). Oral reading expression acts as an indicator of what the reader understands because it provides the opportunity for interpretation of the text being read. Automaticity, fluency, and prosody combine to create a successful reader. The phonics intervention program was developed to promote automaticity through a structured and sequential series of lesson that included repeated and timed practice of sounds of the English language.

Self-efficacy.

Many researchers have linked successful reading to self-efficacy (Bandura, 1977; Fyans & Maehr, 1979; Pajares, 1995; Schunk, 1985). Perceptions of efficacy influence human behavior in three ways: people engage in tasks in which they feel competent and avoid those in which they lack confidence; self-efficacy contributes to the effort people will expend on an activity and how long they will persevere; and self-efficacy beliefs influence individuals' thought patterns and emotional reactions as they approach various tasks (Pajares, 1995). First hypothesized by Bandura (1977), self-efficacy theory affects choice of activities, effort, and persistence. According to this theory, perceived self-efficacy concerns individuals' judgments of how well they can execute responses required in various situations.

More recently, Bandura, Barbaranelli, Caprara, and Pastorelli (1996) analyzed the diverse paths of psychosocial influences through which efficacy beliefs affect academic achievement. They found that parents' beliefs in their efficacy to promote their children's intellectual development and educational aspirations were influential factors in the academic progress of their children. Parents serve as enabling influences in the academic lives of their children. Likewise, children who believe that they can exercise some control over their own learning and mastery of coursework are more successful in their academic pursuits (Bandura et al., 1996). This capability to have control over events that affect one's life protects against feelings of futility and despondency. Bandura et al. predicted that in the future students will require self-regulatory capabilities to educate themselves throughout their lifetime as multimedia instruction presented electronically by master teachers will be available outside the borders of the school. This

advancement in instructional delivery will create a knowledge gap between good and poor self-directed learners.

Efficacy can be integrated with efficient reading strategies when considering the differences between effective and ineffective readers. The gap between good and poor self-directed learners has its roots in attribution of comprehension strategies when learners failed to use relevant strategies because they lacked the inclination to apply them appropriately (Paris & Cross, 1983). Students engage in a decision-making process to determine if the learning goals and behavioral effort required to accomplish the goals through the use of strategies are reasonable and worthwhile. If they decide that it is worth the effort, they will use the strategies, assuming that they have adequate knowledge of the strategy. Empirical support for this contention is found in a study by Fyans and Maehr (1979). They reported that students who attribute their own success on achievement tasks to ability, effort, or luck will prefer to perform those tasks that they perceive as primarily determined by the same attribute, but believe themselves cannot directly cause achievement (Shell, Bruning, & Colvin, 1995). In a longitudinal study of perceptions of competence and task values in grades one through twelve, Jacobs, Lanza, Osgood, Eccles, and Wigfield (2002) found that self-perceptions of competence declined as children got older; however, there is evidence showing that a positive relationship between self-competence and utility value increases as students age (Eccles & Wigfield, 1995).

Students who struggle with reading may have low self-efficacy because the process of trying to decode and comprehend gives rise to unsuccessful results and feelings of low self-worth (Schunk, 1989). Metacognitive theorists have addressed self-

regulation in terms of selecting appropriate comprehension strategies, monitoring one's comprehension, and recognizing the value and application of strategies (Paris, Cross, & Lipson, 1984). Metacognitive training promotes academic learning, but students do not always choose to regularly use metacognitive skills. Researchers have found that self-efficacy is related to self-regulated learning variables (Paris & Oka, 1986; Schunk, 1985). This finding suggests that students who believe they are capable of performing certain tasks use more comprehension monitoring strategies and persist longer than those who do not. Good self regulators tend to do better academically than poor self-regulators.

Metacognition.

Cognition refers to the cognitive processes and actions an individual uses to gain knowledge and information. Metacognition is defined by Brown (1980) as the deliberate conscious control of one's own cognitive actions. Research on metacognition has made many important contributions to effective reading instruction. As it relates to reading, McNeil (1987) indicated that metacognition is how one regulates progress through self-monitoring of comprehension. Metacognition occurs in reading when a reader realizes a failure to comprehend and uses appropriate reading strategies in order to understand (McLain, 1991). Awareness of behavior during reading and techniques used to monitor and regulate reading are metacognitive strategies used in reading comprehension. Comprehension monitoring strategies are examined in this study.

Students may be taught when and how to use comprehension monitoring strategies through explicit instruction (Paris & Oka, 1986). Paris, Cross, and Lipson (1984) and Paris and Oka (1986) conducted studies that concluded that direct instruction

of comprehension monitoring strategies increases metacognitive awareness with older readers.

Knowledge is considered to be metacognitive if it is actively used in a strategic manner to ensure that a goal is met (Livingston, 1997). Knowledge of strategies has been linked to strategy use (Fabricius & Wellman, 1983; Goetz & Palmer, 1984). Students will be unable to use strategies about which they know nothing. However, even when learners know enough about a strategy to be able to use it, maintenance of strategy use may be dependent, in part, on students' perceptions of strategy attributes. The most effective approaches to strategy instruction provide learners with knowledge of strategies and experience or practice in using strategies and evaluating the outcomes of their efforts. Simply providing knowledge without experience or vice versa is not sufficient for the development of metacognitive control (Livingston, 1997). The belief that one can apply a strategy to improve learning instills in learners a sense of personal control over achievement outcomes, which raises self-efficacy. As students work at academic activities, they assess their progress in accomplishing learning goals. Strategy instruction empowers students with skills to monitor their comprehension, which promotes their beliefs about their learning capabilities (Schunk, 1989).

Summary.

In this section on theoretical traditions, I have shown the link between automaticity, self-efficacy, and metacognition. Struggling readers who successfully complete structured and sequential phonics intervention programs gain automaticity, the ability to read with speed and accuracy. Equipped with a means of decoding unknown words, this newfound ability bolsters self-esteem and supports self-efficacy. With

improved self-efficacy, students may persevere in an effort to apply phonics strategies to unknown words and comprehend informational text like the social studies text in this study. Through self-efficacy, students are willing to monitor comprehension. It is an area that has not been studied, and yet such a study can yield valuable information to support explicit phonics instruction for the older reader.

A review of the research reveals that students who complete intensive (structured and sequential) phonics intervention programs may become more automatic in their reading, but we do not know how that automaticity manifests itself in comprehending text. Research to describe the comprehension of informational text by seventh grade students who have completed a phonics intervention program in addition to regular reading instruction is nearly nonexistent. While we have some insights into how comprehension can be improved in older elementary students, there is no clear evidence about what strategies cause the improvement in comprehension of informational text. Furthermore, while studies indicate that explicit strategy instruction is metacognitively sound, it is not clear how students who have completed a phonics intervention program in addition to classroom reading instruction use those strategies when reading informational text.

My study is designed to fill the gap surrounding the comprehension of informational text by seventh grade readers who completed an intensive phonics intervention program in sixth grade.

Chapter III

DESIGN AND METHODOLOGY

This investigation explores how seventh grade readers who completed an intensive phonics intervention program in sixth grade comprehend informational text. In its simplest form, my definition of comprehension is synonymous with understanding what was read. More specifically, I was looking at how the students showed that understanding. Furthermore, I wanted to examine automaticity of readers in this study as they read grade level informational text. I also wanted to explore how students, when reading unfamiliar text, would apply word attack strategies. The ultimate goal of the study was to detect if the readers' use of automaticity, self-efficacy, and metacognition would converge to make comprehension occur.

Overall Approach and Rationale

This study used a multiple case studies approach in which I observed and analyzed the reading behaviors of students as they read informational text. The study is guided from a multi-theoretical perspective: automaticity theory, metacognitive theory, and self-efficacy theory (see Appendix A). The theories provide an explanation as to why students select and apply certain strategies when reading informational text. The interplay of these theories became evident through the research process.

Site and Population Selection

The site for the study was a middle school (grades six, seven, eight) in a mid-Atlantic suburban school system composed of 48,596 students located within easy access to several prominent urban areas and many institutions of higher learning. In the 2005-06 school year when these students participated in the phonics program, 62% of the

students in the school system were White with approximately 20% African American, 14% Asian, and 4% Hispanic. For that school year, the dropout rate was 1.43% (State Department of Education, <http://marylandpublicschools.org/NR/rdonlyres/FCB60CID-6CC2-4270-BDAA-153D67247324/12105/FACTBOOK2007.pdf>, retrieved July 31, 2007).

This school was selected because it offered an intensive (structured and sequential) phonics intervention program to sixth grade students and had the largest number of students who completed the program (nine) from which a sample could be drawn. Completion of the phonics program, as defined by the teacher informant who taught the program to the students in this study, indicates that the students have been taught all of the 130 lessons that are part of the intervention program.

The teacher informant advised that in the 2005-06 school year, the number of required lessons was reduced from 140 to 130. As a result, she was able to combine some lessons towards the end of the year so that all of the required lessons were taught. Students never missed any academic classes because the intervention class was offered during a 45-minute non-academic period that occurred each day and was built into the school's schedule. Unfortunately, students in this intervention program were not able to participate in band or chorus.

The site was selected because the teacher who taught the phonics intervention program was knowledgeable about the students, and was tenured. Tenure indicates two or more years of successful teaching experience. While the researcher supervises reading specialists, a tenured teacher is not subject to review from my office, alleviating any

issues related to evaluative concerns. The teacher was willing to participate in the study as an informant.

A criterion for sample selection was student group representation. The State School Assessment identifies student groups for reporting purposes. These groups are: American Indian, African American, Hispanic, Asian, and White.

In order to determine a sample that reflected these groups, I reviewed the enrollment reports provided by the teachers of this phonics intervention program in June 2006 and obtained additional comparative data. The enrollment percentages are indicated in Table 1.

Table 1

Student Group Representation in the Phonics Intervention Program

Student Group	260 Students Overall Program	40 Students Study School Site	9 Students Study Program Completed	5 Students in Study	590 Students School Study Site	School System Enrollment Statistics
American Indian	0%	0%	0%	0%	0%	.3%
African American	52%	55%	56%	40%	41%	19.8%
Hispanic	16%	18%	44%	60%	7%	4.4%
Asian	7%	2%	0%	0%	8%	13.6%
White	25%	25%	0%	0%	44%	62.0%

Male	53%	47%	67%	60%	54%	51.9%
Female	47%	53%	33%	40%	46%	48.1%
Special Ed.	47%	40%	11%	20%	NA	10.3%

Note: Program statistics were obtained by surveying the teachers of the phonics intervention program at the end of the 2005-06 school year, the year that students in the study were enrolled in the phonics intervention program. School System Enrollment Statistics were obtained from the <http://marylandpublicschools.org/NR/rdonlyres/FCB60C1D-6CC2-4270-BDAA-153D67247324/12105/FACTBOOK2007> website (retrieved July 31, 2007) for the 2005-06 school year, and from the Public Schools Report website, publicschoolsreport.com/?Maryland website, 2005-07 (retrieved August 1, 2007), for the specific school in the study. Enrollment statistics change daily so that there is no way of knowing the point in time that the enrollment statistics were taken. They are provided as a basis of comparison only.

Table 1 indicates that the school study site population of 40 students in the phonics intervention program was generally reflective of the overall percentages in each student group. However, the number of African American (56%) and Hispanic (44%) students enrolled in the phonics program at this site far exceeded the overall percentage of students representing these groups in the school system (African American-19.5% and Hispanic-5.3%). Nine sixth grade students completed the program, representing the largest pool of sixth grade students who started and completed the program in one school year, 2005-06, in this district. In this pool of nine students, more male than female

students and more African American than Hispanic students completed the program at the study site. Neither White nor Asian students completed the program at the study site.

The study sample was selected using purposeful sampling. Purposeful sampling is a strategy in which particular settings, persons, or events are deliberately selected in order to provide important information that could not be as easily obtained from other choices (Maxwell, 1996). The students were selected because they completed the phonics intervention program in sixth grade, indicating that they finished the 130 lessons in the program, and, as much as possible, they were selected to ensure diversity of gender and race (see Table 2). The students in the sample consisted of two female students and three male students. One of the female students was African American with an Individualized Education Plan (IEP) indicating that she received Special Education services, and the other female student was Hispanic. Two of the three male students were Hispanic, and the other male student was African American. The Hispanic students were not identified as English Language Learners (ELL) or second-language-learners.

Another criterion for inclusion in the study was the students' verbal expressiveness. It was necessary to have this prerequisite so that the students would be able to converse with the researcher during interviews and the think aloud activities. The teacher informant assisted the researcher with the selection of these students who had exhibited their willingness to converse in her intervention class.

All of the students except for the student with an IEP (marked Below Level) were marked on level in reading by their reading teacher on their fourth quarter grade six report card. The designation of reading level on the report card is determined by the reading teacher based upon multiple data points discussed under *Testing criteria for study*

participation in this chapter. Their reading teacher was not the reading specialist who taught the phonics intervention program. The intervention class was in addition to the reading class that is required in this school district for all students in all middle school grades regardless of reading ability.

Testing criteria for study participation.

Students in the sample were to meet several testing criteria for inclusion in the study. The two standardized tests were the State School Assessment and the Degrees of Reading Power (DRP). They were to have scored Basic or Proficient on the grade five State School Assessment and scored at a stanine of one, two, three, or four on the Degrees of Reading Power test (DRP) given at the beginning of grade six. At the end of grade six, the students should have scored close to or within on-grade level range on the DRP, attaining stanines of two, three, four, or five. It should be noted that the phonics intervention program uses the Woodcock Word Identification Test and the Woodcock Word Attack Test administered by the instructor of the program at the beginning and end of the program to show growth. As reported by the teacher informant, successful growth would be four or five years of growth in the ability to decode based on these test results. These tests are required as part of the intervention program and were not part of entry criteria for my study.

The reading teachers in this school district must mark students on, above, or below in reading each quarter. In making this determination, the teacher uses multiple data points including results from the State School Assessment, the Degrees of Reading Power (DRP) test, reading scores from local assessments, and teacher observation of performance in reading class (see Table 2). The reading score from local assessments

(60% correct is passing) is derived by the school district by embedding reading questions into content area local assessments. The term, *local assessments*, refers to the fact that the assessments are created by teachers in this school district for use by the teachers of specific content areas throughout the district. The assessments are approved before dissemination by the district's Assessment Office. This notation of on-level in reading was true for all but one student in the sample.

Test descriptions.

The five seventh grade students selected for this study were identified at the Basic or Proficient level in reading as defined by the State School Assessment for grade five. For comparison purposes, the results of the Grade Six State Reading Test administration were available when the study began in September, 2006 (see Table 2). The students had not completed the phonics program when this testing occurred. The State School Assessment is a test of reading achievement that assesses the state content standards in reading. It is administered annually in March to students in grades three through eight. The test includes multiple choice and short essay questions. The scores show how students performed in comparison to students within the state and across the nation. The scores are reported as Basic, Proficient, or Advanced based on cut scores that are approved by the State Board of Education (School Improvement in Maryland: *How do schools improve student performance?* retrieved May 5, 2007).

Additionally, at the end of sixth grade students in this sample scored a stanine of two, three, four, or five on the Degrees of Reading Power test (DRP). The stanines are divided as follows: one, two, three=Below; four, five, six=On; seven, eight, nine=Above. The Degrees of Reading Power test (DRP) is a cloze comprehension test consisting of 70

multiple choice items where the student must select the word that best completes the blank in the informational text that is provided. Reading comprehension on the DRP test is defined as the ability to use the syntactic and semantic information in prose passages to complete or restore a missing section of a passage correctly (Touchstone Applied Science Associates, Inc., 2000). Correlation studies indicate almost perfect agreement on the difficulty of DRP test items between males and females ($r=.99$), between African Americans and Whites ($r=.98$), and between African Americans and Hispanics ($r=.98$) (Touchstone Applied Science Associates, Inc., 2000). There is a slightly lower correlation between Hispanics and Whites ($r=.96$). The DRP test is given to all sixth grade students in this school system at the beginning and end of the sixth grade.

Students in this intensive phonics intervention program are pre- and post-tested with the Woodcock Word Attack and Word Identification Tests (Woodcock, 1998). The Word Attack test has students read nonsense words to test phonetic word attack. The Word Identification test has students name letters and read words aloud. The teacher of the intervention program administers the tests and is trained to do so as part of her training for the program (see Table 2).

Intensive phonics program in this study.

All students selected for this study completed an intensive (structured and sequential) phonics intervention program in sixth grade and started seventh grade when the study began. The phonics program completed by the students consisted of 130 sequential lessons presented in three phases: (a) The introduction of the 44 sounds of English with training for students to recognize and manipulate these sounds automatically; (b) The teaching of the secondary spellings of vowels, consonant blends,

syllabication and auditory-visual automatic decoding for two-syllable words; and (c) The multi-syllable level training including common clusters and pronunciation and spelling of verb forms. All of the classes included these basic activities along with opportunities to write using the sounds that were taught and to read chapter books. The teacher informant reported that the books that were read as part of the program were low-level, easy reading books that were around the first grade level. Using easy books to build reading confidence while students are learning to be automatic and fluent readers is suggested by Samuels, Ediger, and Fautsch-Patridge (2005). The controlled vocabulary in these books that may contain fewer new words and more repetitions of words within the passage may be easier for some aspects of fluency development. Chapter books were included as part of the reading in the program that were closer to grade level reading. According to the teacher informant, students became motivated when they saw that the application of the decoding skill to unfamiliar text led to progress.

Table 2

Data for Students in the Study Sample

Student	Gender	Student Group	DRP- Pre	DRP- Post	Wdck IDGrow	Wdck AtGrow	SSA 5	SSA 6	RdgLvl Gr. 6
Roy	Male	H	2	3	5.4	13.6	P	P	On
Thomas	Male	H	3	4	5.2	6.8	P	P	On
Ivy[IEP]	Female	AA	1	2	3.6	7.5	P	P	Below
Victor	Male	AA	4	4	5.0	7.8	B	B	On
Eva	Female	H	3	5	3.3	5.3	-----	P	On

Note: Abbreviations: H=Hispanic; AA=African American; DRP=Degrees of Reading Power reported in stanines [1,2,3=Below; 4,5,6=On]; Wdck=Woodcock, At=Attack in years of growth (Pre/Post), Grow=Growth ID=Identification in years of growth (Pre/Post); SSA=State School Assessment (Reading)-P=Proficient; B=Basic; Rdg Lvl=Reading Level as indicated on the final report card in sixth grade

Table 2 provides a summary of data about the students in the sample. Thomas, Victor, and Eva moved from below level to on level on the end of year administration of the Degrees of Reading Power (DRP) test. Ivy and Roy remained below level on the DRP. All of the students except Victor were Proficient on the fifth and sixth grade State School Assessment; however, Victor was marked on level at the end of sixth grade, probably due to his DRP scores, while Ivy was marked below level, probably the result of her DRP scores that were below level. The Woodcock Word Attack and Word Identification tests showed significant gains in years of growth by all of the students.

Data-gathering Methods

The study was conducted during September-December 2006 (see Appendix B) when the students in the sample were in seventh grade. State School Assessment reading data from grades five and six were available as were results from the Degrees of Reading Power test (DRP) administered at the beginning and end of grade six. These testing results provided comparative data on reading ability before and after participation in the intensive phonics intervention program. Data collection included self-report, survey, interview, think aloud session, informal reading inventory, paragraph writing, comprehension check, and researcher observation (see Table 3). The time each student was involved in the study did not exceed 90 minutes allowing sufficient time to address

the study's protocol. Data were collected from the Reading Behaviors Survey (see Appendix C) and the Reading Interest Survey (see Appendix D) that are part of the Student Reading Portfolio kept by reading teachers in this school system. These surveys were teacher-created during paid curriculum writing sessions and approved for use for middle school reading throughout the school system. Approximately 12,000 middle school students complete these surveys annually.

Data Gathering Procedures

Students participated in the data-gathering activities listed here by session.

Session I

- Informal Reading Inventory (IRI): The Stieglitz IRI Graded Word List was read by students to determine an approximate reading level. Students were asked to read aloud the graded word lists from the Stieglitz Informal Reading Inventory (Stieglitz, 2002) that is one of two Informal Reading Inventories approved by the school district for middle school. The list was developed from two sources of vocabulary: *Basic Reading Vocabularies* (Harris & Jacobson, 1982) and *A Cluster Approach to Elementary Vocabulary Instruction* (Marzano & Marzano, 1988). Words were selected randomly from both vocabulary lists for grades one through six, while the seventh- and eighth- grade lists reflect only those words from *Basic Reading Vocabularies*. Pilot testing of the word lists indicated that the correct starting point or independent level was identified correctly in 46.7 percent of the cases. In order to provide an approximate reading level, the students read the words aloud until an approximate base and ceiling level were reached. The researcher recorded the responses on prepared forms.

- Self-Report: Students were provided paper on which to write a paragraph about how they see themselves as readers. They responded to the question:
 - How has participation in the phonics program in sixth grade affected you as a reader?
 - A Likert Scale of one to five (five being the highest rating) was used to allow students to rate themselves as readers from poor to excellent.
- Prior Knowledge: Since the textbook selection was about Latin America, the students were asked what they knew about Latin America, and the responses were audio recorded and transcribed. It was important to learn of the prior knowledge regarding the topic because prior knowledge affects comprehension. When students know about a topic, that knowledge can enhance their ability to understand the text associated with it. Prior knowledge can be the basis for construction of meaning as links are made while reading to pre-existing knowledge.

Session II

- Read and Think aloud: Oral reading as a measure of comprehension has been used traditionally as a means of making the invisible act of reading visible to the researcher. In reality, findings regarding comprehension as it relates to silent versus oral reading are mixed. In some reports there is a suggestion that students comprehend better when reading orally because they need to concentrate on the words (Elgart, 1978) while other studies suggest that reading orally is superior because the student uses two senses, sight and sound, to read (Elgart, 1978; Swalm, 1972). In contrast, Rowell (1976) found that silent reading may be

superior to oral reading because in oral reading, students must attend to pronunciation and interpretation that may cause them not to understand the content of the text. The efficiency of silent versus oral reading comprehension was studied by McCallum, Sharp, Bell, and George (2004). Their study was designed to determine differences in performance and efficiency (speed of performance) for a sample of 108 elementary and middle school students in grades kindergarten through six as a function of reading individually administered test passages silently and orally from the Test of Dyslexia. The Test of Dyslexia (McCallum & Bell, 2001) is an individually administered test that is similar to an informal reading inventory and is currently in development. The results, which were analyzed using a Multivariate Analysis of Covariance and by two Analyses of Covariance, indicated no significant difference between reading comprehension scores after reading orally versus reading silently. They did find that the silent reading group read faster.

The think aloud was intended to reveal the comprehension strategies employed by the students by asking them to talk aloud about the things that they might be thinking as they read. Ericsson and Simon (1993) distinguish between the talk aloud and think aloud. They identified the talk aloud as having the subject say out loud whatever they were saying silently to themselves. On the other hand, they defined the think aloud as the verbalization of simple or complex thoughts, including cognitive processes recalled from short and long term memory. I anticipated that students in this study would think aloud about the

immediate connections they were making to the text (short term memory) and to discuss how they constructed meaning from what was read.

The read aloud was used as a means to hear students reading grade level text. Miscues and observations of oral reading were recorded. The think aloud was intended to give students the opportunity to discuss their thoughts while reading as a means of identifying levels of cognition, how they may have used text features to build understanding or how prior knowledge connected to new knowledge. It was anticipated that the thoughts revealed would lend insight into the comprehension strategies used by students while reading. For example, it would be possible to ascertain that students make inferences, recognize that comprehension has failed, self-question, or summarize and/or paraphrase parts of the text. The researcher noted the students' comments and thoughts and recorded them on audio tape. Their comments were analyzed for frequency and types of comprehension strategies employed.

The researcher modeled how to think aloud using several paragraphs from the same seventh grade social studies text that was used in this study. This selection was different than the passage that was read by the students. Students read five pages of text from the seventh grade social studies Prentice-Hall textbook publication, *World Cultures: A Global Mosaic* (Ahmad, Brodsky, Crofts, & Ellis, 1999). The topic of the text was Latin America and the United States. The text contained text features such as photos and captions, charts and tables, etc. Students were asked to read aloud and to pause as needed to think aloud. After working with two of the students, it became apparent that the

students would not pause to think aloud unless requested to do so. Small strips of adhesive notes with the words *Think Aloud* were placed within the text to create natural stopping points near the end of topic sections so that students would be cued to stop and think aloud at those points. Leslie and Caldwell (2006) used this same procedure of placing stops in text in their Qualitative Reading Inventory-4 product. Ericsson and Simon (1993) indicated that information reported in response to a reminder to think aloud should be the same as information reported spontaneously; however, the verbalization will be from information in the short term memory instead of verbalizing the information that was immediately read.

I tape recorded the students reading and thinking aloud. Afterwards, I listened to the tapes and noted the errors or miscues that were made on copies of the text. Typical miscues include repetitions, omissions, substitutions, insertions, and self-corrections (Stieglitz, 2002). Analysis of the miscues provided a basis for comparison of the quality of reading between readers. The audio recording of students reading the text allowed me to determine rate of reading at words per minute.

- Social studies textbook: Social studies text from a textbook was selected as representative of informational text. The State Department of Education of the state in which this study occurred provides a Voluntary State Curriculum in Reading/English Language Arts that divides text into two types: literary and informational. Informational text is generally characterized by text features, such as maps, charts, illustrations and photos, etc., has chapters and subheadings, and contains parts including table of contents, glossary or gazetteer, and index. Social

studies textbooks fall into the state's category of informational text. I met with the district's social studies coordinator who shared a typical seventh grade social studies textbook with me. I decided to use this Prentice-Hall book for the study, and, once the topic for the text was identified, I specifically selected pages of text that contained text features that were noted here. The presence of text features was necessary to prompt students to talk about them and how they were used to comprehend the text during the think aloud process. The coordinator suggested that I use the chapter on Latin America since he knew that it would not be taught until later in the year of seventh grade, and the study was being conducted during first and second quarters of seventh grade. By using this Latin American text, I could limit instructed prior knowledge since the students in the study would not have been introduced to that unit.

The textbook, *World Cultures: A Global Mosaic* (Ahmad, Brodsky, Crofts, & Ellis, 1999), defines the term *Latin America* as referring to "...a vast cultural region. It includes the lands in the Western Hemisphere that were influenced by Spanish and Portuguese settlers. The word *Latin* refers to the Latin language that is a common root for Spanish and Portuguese" (Ahmad et. al., 1999, pp. 439-441). The textbook continues to describe Latin America as a region stretching 5,500 miles from the Rio Grande in Mexico to Cape Horn at the tip of South America. Latin America, it states, is located between the Atlantic and Pacific Oceans and shares the Western Hemisphere with the United States and Canada.

A readability check was conducted on the text by typing over 200 words directly from the text used in this study into a Word document and then applied the Flesch-Kincaid readability formula that is part of the Microsoft Word suite to determine the reading level. It came to 10.7 (ten years, seven months). This determination was not surprising even though the book was intended for seventh grade use. The specialized vocabulary associated with content text that typically is multisyllabic increases the reading level of the text due to the difficulty of the words. This text had multisyllabic words throughout the pages.

- **Comprehension Check:** Following the think aloud, students completed a brief multiple choice comprehension check related to the selection consisting of four questions reflecting the areas of comprehension including identification of main idea, general recall, inference, and vocabulary (see Appendix E). These areas of comprehension reflect the comprehension objectives of the Voluntary State Curriculum (VSC) (School Improvement in Maryland: *What Does [S]SA Test? VSC Reading Grade 7*, retrieved May 5, 2007) on which reading instruction at the middle school level in this school system is based. The check was intended to mirror the kind of quiz that a classroom teacher might give to students after they read a selection from a textbook. Its results would reveal only what was generally recalled in short term memory. Students were not asked to look back to find or confirm the answer in the text.
- **Semi-structured interview:** Students were asked questions concerning how they constructed meaning from the text (see Appendix F). The session was audio recorded and transcribed.

Session III

- Member Check: Students' responses from the interview and think aloud were reviewed with the students for clarification and were audio recorded and transcribed (see Appendix G).

Surveys.

Two teacher-created surveys that all middle school students in this district complete as part of their reading portfolio were reviewed.

- Reading Behaviors Survey (see Appendix C): Strategies are listed under the headings before, while, and after reading to which students respond with always, sometimes, never, or not sure. Examples of strategies include knowing the purpose before reading, knowing when comprehension has failed to occur while reading, and summarizing the main ideas of the text after reading. The survey is completed in the reading class, usually during first quarter, and is kept in each student's reading portfolio. The results of this survey may be indicative of the students' metacognitive awareness.
- Reading Interest Survey (see Appendix D): Students indicate what they like to read, if they read for long or short periods of time, and how reading is supported in the home. This survey is usually completed during first quarter and is part of the Student Reading Portfolio. It is most closely tied to self-efficacy because it allows the students to reflect upon and report on their reading abilities and their attitudes toward reading.

Table 3

Data-Gathering Process Summary

Measure	Explanation	Analysis	Theory	Validity/ Reliability
SSA Grade 5 and 6	Basic	Comparative	Metacognition	Standardized test
DRP	Cloze test	Stanine	Metacognition	Standardized
Stieglitz IRI	Pre/Post Wd	Base/Ceiling	Automaticity	Pilot tested
Reader/ Likert Scale	Paragraph	Attitude	Self-efficacy	Self-report
Think-aloud	Read text	Coding-patterns from Audio-tape	Metacognition Automaticity	Self-report
Compr. Check	Multiple Choice	Accuracy of comprehension	Metacognition Metacognition	Informal quiz NA
Interview		Comprehension/ Coding -Patterns from audiotape		Self-report
Member Check	Confirms/ Refutes	Coding for Patterns	Self-efficacy	Self-Report

Survey- Behaviors	Strategy awareness	Coding for Patterns	Metacognition	Self-report
Survey- Interest	Likes/ Dislikes	Coding for patterns	Self-efficacy	Self-report

Note. SSA= State School Assessment; DRP=Degrees of Reading Power Test; IRI= Informal Reading Inventory; Compr.=Comprehension; Comp.=Comparative.

Table 3 describes the measures that were used to obtain data. Most of the measures were self-report with the exception of the two standardized tests, State School Assessment and Degrees of Reading Power (DRP). Self reports limit transferability as the data reflects the personal situations of the study sample.

Data Analysis Procedures

Triangulation is the collection of information from a broad range of sources using a variety of methods. Examples of data source results that can be triangulated are interview results, self-report, and think-alouds (self-efficacy); think-alouds, Reading Behaviors Survey, and Reading Interest Survey (metacognition); informal reading inventory, reading aloud, comprehension check (automaticity); and testing results from the State School Assessment, Degrees of Reading Power (DRP) test, and the Stieglitz Informal Reading Inventory.

The read aloud was reviewed for errors known as a miscue analysis. The researcher listened to the audio recording of the students reading and marked the errors on a copy of the text. General miscues include (Stieglitz, 2002):

- Substitution: Nonword: The printed word is replaced by a nonword or word part.

Whole word: The printed word is replaced by a real word.

- Omission: A whole word, group of words, or word part is omitted.
- Insertion: An extra word is added to the text.
- Self Correction: Readers correct the incorrectly read word without assistance.

Substitutions were analyzed through a comparison chart of word read to word in text based on degree of similarity of high similarity, some similarity, or no similarity (Wilde, 2000). Graphic similarity as a reading technique replaces the phonics technique of sounding out words when students become frustrated with the large amount of unknown words in text that slows their ability to read rapidly.

Reading rate was determined by identifying the number of words read in the same passage for one minute by each student. The rate yielded number of words per minute.

The results from the self-report as readers, think aloud, interview, member check, and surveys of the five cases were compared and analyzed for recurring and conflicting patterns. The design allowed for rich description that is intended to extend current knowledge of meaning construction by seventh grade students who completed a phonics intervention program in sixth grade. The data collection methods (see Table 3) provided data to review and analyze. The purpose of having multiple data sources is to triangulate data for confirmability.

The researcher maintained transcribed audio tapes of the students' interactions with informational text through the read and think aloud that were coded and to which comparisons were made. Observations and transcribed interviews were coded using open and axial coding. The coding was done inductively through the process of category generation as evident patterns emerged. Evident patterns may be recurring or conflicting. The researcher looked for the salient categories of meaning expressed by participants.

Once the patterns and categories were identified, the data was searched for negative or conflicting cases. Alternative explanations were identified, described, and analyzed. Discrepant cases where students reported making no meaning and used no strategies were analyzed. Member checks to return to sample members provided me with opportunities for clarification.

Data were analyzed to form linkages between tested ability, reported self-perception of reading ability, and strategy selection.

Table 4

Analysis of Data

Data Source	Analysis
<u>Descriptive Data:</u>	
Degrees of Reading Power (DRP)-pre and post	Reported in stanines for participation in study; Comparison of pre/post scores
State School Assessment, 5 & 6	Basic or Proficient in Grade 5 needed for participation in study; Comparison to Grade 6 results after intervention
Stieglitz Informal Reading List -Graded Words	Results provided a general grade-equivalent reading level
Comprehension Check	Results indicated level of understanding of text; scored by percentage correct
<u>Qualitative Data:</u>	
Self-Report	Written student response coded for patterns; looking

	for attitude towards self and reading
Read and Think-aloud	Transcribed and researcher notes; Comparative coding; open and axial coding; looking for recurring and conflicting patterns; analysis of miscues, reading rate, strategy use
Semi-structured Interview	Responses to questions were transcribed; Researcher took notes; comparative coding; looked for recurring and conflicting patterns; open and axial coding
Member Check	An opportunity to clarify with the students any points in the qualitative data.
Reading Behaviors Survey	Reviewed for students' awareness of how they read and strategy awareness
Reading Interest Survey	Reviewed for recurring patterns

Table 4 indicates the qualitative and descriptive properties of the study. Data collection processes and analysis indicated reveal a variety of data points.

Research Perspectives

The theoretical perspectives of automaticity, self-efficacy, and metacognition guide this study. The data sources in this study support these theories. Results from the State School Assessment, Degrees of Reading Power test (DRP), and Stieglitz Informal Reading Inventory Graded Word List reflect the students' ability to read with fluency and speed (automaticity). The think-aloud, semi-structured interview, and comprehension

check support metacognition and automaticity. The interview also reflects self-efficacy, revealing the students' attitudes toward reading, as does the Reading Interest Survey. The Reading Behaviors Survey contributed to the understanding of the students' metacognitive or self-regulatory abilities.

The data results based on these perspectives led to a better understanding of the means by which seventh grade students who have completed an intensive phonics intervention program in sixth grade comprehend informational text.

Validity and Reliability

The observational and interview notes including transcribed interview and think-aloud sessions along with student writings and results of surveys, comprehension checks, and graded word lists from an informal reading inventory produced a variety of data points for triangulation that allowed the researcher to examine issues of validity and reliability. Member checks as a means of clarifying notes were utilized in this study.

Trustworthiness

To establish credibility of findings, the researcher looked for evidence in the form of recurring behaviors or actions and considered discrepant evidence and negative cases and alternative explanations. Triangulation of data from multiple data sources was applied to strengthen conclusions derived from the study. These methods were part of the data analysis of this study.

Many of the data measures relied on self report, including interview, survey, Likert scale, think aloud, and member check. Self-report is subject to the matter of trust. Self-reports have been shown to be unreliable (Ericsson & Simon, 1993); however, the issue of reliability of self-reports can be avoided by simply reporting what the subject

says. Verbal behavior or self-report on surveys should be analyzed like any other behavior (Ericsson & Simon, 1993). Self-reports in this study were reported as stated by the students.

Credibility.

Credibility in qualitative research is the constructionist equivalent of internal validity in quantitative research. Credibility is increased through prolonged field engagement, persistent observation, triangulation, peer debriefing, negative case analysis, and member checks (Denzin, 1994, p. 513). In this study, time with students was limited by access to honor the commitment not to pull them from academic subjects; however, triangulation, debriefing, negative case analysis, and member checks were part of the analysis of data.

A threat to credibility is researcher bias. The fact that I am a reading supervisor in this jurisdiction gives me entrance into schools and classrooms, but I only worked with one tenured teacher in this study. The ultimate outcome of the study has no bearing on me personally, but would generate information to inform instruction.

I approached this study in search of information that would impact instruction. I wanted to know more about when strategies were used and which ones appeared to be most important to the students. I was looking for a pattern in this regard.

Transferability.

Transferability implies that the findings can be generalized or transferred to similar situations with similar research questions. Transferability is limited due to the small size of the sample of five students. To enhance transferability, I have attempted to

describe the research context and the assumptions and frameworks that were salient to the research.

Dependability.

Dependability was met through anticipation of changes that occurred during the course of the study. Dependability is the equivalent of reliability in quantitative research that refers to the replicability or repeatability of the study. Qualitative research does not lend itself to repeatability, particularly in case study approaches, which are situational. The teacher informant and all of the students remained in the study for its entirety, providing a measure of dependability to the findings. The methods employed for data collection support dependability. Interviews, participant observation, surveys, and student writings confirm the findings.

Confirmability.

Confirmability of the results is supported by field notes, process and personal notes, and memos. Field notes were used to clarify and confirm findings. Memos served as reminders to conduct activities or acquire specific information. Triangulation provided robustness while patterns were examined for comparisons, contrasts, and outliers.

Ethical and Political Considerations

The middle school reading specialist in the study was invited by me as researcher to participate in the study. The full purpose of the study was revealed. The teacher was given a consent form for participation, which she signed. She was assured that anonymity would be protected through the use of pseudonyms, and the school and school system would not be identified by name. The teacher was advised that by participating in the study, she would be a participant informant who would help me identify the cases at

the school. The teacher was also called upon to assist me in identifying students for the sample, locating space to meet within the school, finding an appropriate time in the students' schedules for me to meet with them, and facilitating a meeting with parents of prospective students for the study.

I provided opportunities to meet with parents/guardians of students who were invited to be part of the study. This meeting occurred on a weekday evening. I employed a Spanish translator whose services had been used by the school system's ESOL (English Speakers of Other Languages) Office to interpret the discussion with the one parent who chose to attend. I shared the purpose and methodologies of the study with her. I reviewed the study with the parent to include: sessions with students would be conducted in a classroom, conference room, media center, or area designated by the teacher; right to withdraw their students from the study. All Parents/Guardians signed consent forms, and students agreed to participate in the study and signed assent forms. Code numbers and/or pseudonyms were used to retain anonymity. Student names, school names, school system name, and teachers of students were not revealed.

All materials associated with this study are kept in the home of the researcher in a locked file cabinet and will be destroyed after five years of the dissertation pass date.

Only the researcher has access to the file.

Chapter IV

RESULTS

This study was designed to examine how seventh grade students who completed a phonics intervention program in sixth grade comprehend informational text. I wanted to find out what strategies students employed, how students described the strategies, and how completion of a phonics intervention program affected their attitude toward reading. Parents who had given permission for their children to participate in the study were invited to meet me at a Parents' Night informational meeting. Once the study began, I met with the students in three half-hour sessions in which they read aloud from a social studies textbook, wrote responses, answered comprehension questions, or participated in interviews.

The activities of Parents' Night are summarized, and results are provided by session: Session I-Introduction and Prior Knowledge; Session II-Read Aloud/Comprehension Check/Interview; Session III-Member Check. Then, each student is presented as a case study.

Parents' Night

The parents/guardians of the five students who were invited to participate in the study signed and returned the Parent Informed Consent Form. The September parents' meeting announcement was distributed by the teacher informant to the students who carried it home to their parents. The announcement went out a week in advance of the meeting. The meeting was to be held at 7:00 PM at the study site in the teacher informant's classroom. I provided an evening meeting because many parents work during the business day. The teacher advised me that three parents would be attending,

and that some of the parents would need Spanish translation services. I arranged for a translator to be present. I located the translator through this school system's English for Speakers of Other Languages (ESOL) Office. The teacher, translator, and I were present before 7:00 PM, the appointed meeting time, and we met in the teacher's classroom. By 7:15 PM, only one parent arrived who required translation services. The parent was accompanied by two children; one was her daughter, Eva, who was invited to participate in the study, and the other child was an adolescent male relative. The classroom was small, and the children and the teacher informant were in the hallway outside the classroom for most of the meeting. Eva came into the room during the meeting. We sat at the desks that were grouped together in the center of the room, and the translator assisted me in explaining to the parent the purpose of my study and the activities that would occur during each of the three sessions of the study. I indicated that I would meet with her child three times for about one half-hour each time, and that I would not take her child from an academic subject. I added that the teacher informant would assist me in making the schedule to meet with the students. I learned through the translator that the parent thought that I was going to test her child for reading ability, and I clarified that any testing that I conducted was for the study but did not affect her child's grade or reading placement. The parent requested that the teacher informant, who was also the school's reading specialist, provide her with school testing results, and I conveyed that message to the teacher. Our discussion ended at 7:45 PM. The teacher informant, translator, and I waited until 8:00 PM. We left the building when it appeared that no other parents would arrive.

Session I: Introduction and Prior Knowledge

Prior to Session I of the study, I had met only Eva who had accompanied her mother to the parents' information night for this study. Session I was the first time that I met the other participants, Roy, Thomas, Ivy, and Victor (pseudonyms). I began this initial session by introducing myself to each of the students and sharing the purpose of my study. I explained that I was an employee of the school system, but also a student in a doctoral program, and as part of the program, I was conducting a study to learn more about how they read after having completed a phonics intervention program in sixth grade. I said that I would be meeting with them three times over the next few months to obtain information, and at times, they would be audio recorded. I told the students that any work they completed for me in these sessions would in no way affect their grades. The students declined the opportunity to ask questions. Our meetings occurred primarily in the conference room located off of the main office and once in the television studio located off of the media center.

Each participant was assessed for his or her approximate reading level using the Stieglitz Informal Reading Inventory Graded Words in Isolation Test Part A (Stieglitz, 2002). Graded words in isolation are a series of 20 graded singular words presented in list form to determine an approximate reading level. The base level of this test is the highest grade level list at which students are able to read each flashed word correctly (100%). The ceiling level is the grade level list on which the students miss five or more flashed words (75%). After having conferred with the teacher informant who worked with these students in the phonics intervention program, it was determined that I should begin with the Grade Two list for each student in the study.

The Graded Words in Isolation Test Part A is scored using each student’s initial response or what is termed “flashed” as each word in the list is revealed to the students. After all words are flashed, the examiner returns to the missed words and allows students to attempt to read the words again. This portion of the test is the “delayed” part.

Table 5

Results of the Stieglitz Graded Words in Isolation Test Part A

Student	Base Grade	Ceiling Grade
Roy	2	5
Thomas	2	6
Ivy	1	6
Victor	2	7
Eva	3	7

Table 5 illustrates that these students who completed a phonics intervention program were reading with ease at grades two and three with the exception of Ivy at grade one. Two students could read text at grade level seven, their current grade, while the remaining three students read one or two years below grade level.

Written response for each student.

Following the Graded Words in Isolation Test, students were asked to respond in writing to the question, How has participation in the phonics program in sixth grade affected you as a reader? They were also asked to indicate on a Likert Scale of one to five (one was poor moving to fair, good, very good, and five as excellent) how they

viewed themselves as readers before and after their participation in the phonics intervention program.

Table 6

Results of Likert Scale-Self-Report on How Well Students Read

Student	Before Program	After Program
Roy	Fair	Very Good
Thomas	Fair	Very Good
Ivy	Fair	Very Good
Victor	Good	Very Good
Eva	Fair	Between Good and Very Good

Table 6 illustrates that all of the students reported that they were better readers after participating in the phonics intervention program. Only Victor considered himself to be a good reader before the program while the other students considered themselves to be fair readers prior to participation in the phonics intervention program. In fact, Victor was the only student to score On Level on both the pre and post test of the Degrees of Reading Power (DRP) test; however, he was also the only student in the sample to score Basic on the State School Assessment in both grades five and six.

Prior knowledge.

Each student read from a typical seventh grade social studies textbook that is used in this school system, *World Cultures: A Global Mosaic* (Ahmad, Brodsky, Crofts, & Ellis, 1999). The coordinator for secondary social studies suggested that I use the topic

on Latin America for the text since these seventh grade students would not study that unit until later in the seventh grade. I wanted to know how much the students knew about Latin America in advance of the read aloud portion of the study. Prior knowledge of a topic can improve comprehension because it enables readers to make links between previous and new knowledge.

To check their prior knowledge of Latin America, I asked each student: Do you know anything about Latin America; have you heard of Latin America?

Table 7

Summary of Prior Knowledge of Latin America

Student	Prior Knowledge
Roy	Parents and friends from Latin America; Has been to Peru
Thomas	Nothing
Ivy	Nothing
Victor	Nothing
Eva	Nothing

Table 7 shows that with the exception of Roy, the students in the study had no prior knowledge of Latin America. Roy was the only student who had visited that part of the world.

Session II: Read and Think Aloud, Comprehension Check, and Interview

Read and think aloud.

The protocol for this session of read and think aloud was for me to model how to read aloud and then stop at various places in the text to talk about what I was thinking when I read the text and how I gained understanding from what I read. I used a passage from the same textbook that students used in this study, but the passage I read was on another topic. I referenced text features such as maps and photos and talked about prior knowledge as it related to what I was reading. I inserted adhesive notes in strategic points in the text when it became evident that students would not stop and think aloud unless told to do so. I anticipated that students would talk about the text in the same manner, drawing from their instruction through the reading curriculum that calls for explicit strategy instruction.

Even with my modeling, the first two students failed to stop during the reading when it was their turn to read. When I saw that they were not going to voluntarily stop and think aloud, it was necessary for me to stop them and ask them to think aloud. Rather than stop the next three students, I marked places in the text for students to stop and think aloud. I used adhesive notes and wrote the words *Think Aloud* on them. I placed adhesive notes stating *Think Aloud* in strategic places within the text that I read for modeling purposes.

Students read the text aloud and were audio recorded. Copies of the text were used to mark the miscues of each student. The majority of errors proved to be substitution errors in that students called a word by something other than the correct word. Using the work of Wilde (2000), the substitutions were divided into degree of

similarity to the printed word, or how much the miscue resembled the text: high, similar, or none. For example, if the word *wander* in the text was called *wonder*, there would be a high degree of similarity; however, if the word in the text was *the* and the miscue was *a*, there would be no graphic similarity. High graphic similarity is driven by the letters in the word and the sounds that accompany them. If the word in the text was divided into thirds, the word would have high graphic similarity if two of the three parts looked alike. Table 8 indicates the number of substitution miscues and the percentage of the substitutions related to the actual word. In total, students read 771 words in the selection.

Table 8

Summary of Substitution Miscues: Similarity to Actual Word

Student	Total Miscues	#Sub. Miscues	High	Some	None
Ivy	61	42	43% (18)	48% (20)	10% (4)
Thomas	74	44	32% (14)	49% (26)	9% (4)
Eva	111	52	27% (14)	67% (35)	6% (3)
Victor	61	37	65% (24)	27% (10)	8% (3)
Roy	60	25	56% (14)	32% (8)	12% (3)

Note: Total miscues of the 771 words read. Similarity to actual word based on *Miscue Analysis Made Easy* (Wilde, 2000). The numbers in parentheses indicate the number of words of the total substitutions that had high, some, or no graphic similarity.

As illustrated in Table 8, four of the five students had a similar number of miscues in the read aloud. Eva had the most miscues. All of the students relied on high or some graphic similarity by letter and sound when substituting a word for one in the text. Eva

made the most substitution miscues (52) and called those words by words that had some similarity (35). Words having some graphic similarity are those that have generally the same configuration (such as *at* and *in*). Substitution of words when reading text implies that the students are applying some phonics knowledge based on beginning and ending letters and sounds of words; however, they are not applying the strategy that was taught in the phonics intervention program of breaking the word apart, sounding it out, and putting it back together. This reliance of students on calling words by similar looking or sounding words impedes comprehension when the wrong word is read.

Comprehension check.

Following the read and think aloud, students were given a brief comprehension check. The comprehension check consisted of four multiple choice questions. The questions were main idea, inference, vocabulary, and general recall (see Appendix E). The comprehension check was developed much as a classroom teacher would create a quiz to assess the understanding of an assigned reading. The questions themselves were intended to reflect the format of those questions that are asked on the State School Assessment) that all middle school students must take annually.

Table 9

Comprehension Check Results

Student	Score	Main Idea 1	Inference 2	Vocabulary 3	Gen. Recall 4
Roy	50	√	X	√	X
Thomas	25	X	X	X	√
Ivy	25	X	√	X	X

Victor	75	X	√	√	√
Eva	25	√	X	X	X

Note: The √ indicates that the answer was correct. The X indicates that the answer was incorrect.

The results of the comprehension check in Table 9 illustrates that none of the students were able to achieve 100%, with 75% accuracy being the highest attained score. The results were essentially the same across all questions with three students of the five answering the question incorrectly. Main idea, inference, and vocabulary required the students to think critically about their responses. There was one general recall question. Students relied on what was remembered (recalled) immediately following the reading of the text to answer the question.

Interview.

Table 10

Emerging Patterns from the Interview Following the Read Aloud Session

Patterns	Roy	Thomas	Ivy	Victor	Eva
Prior knowledge	Yes- visited Peru	No	No	Limited- friends	No
Had difficulty reading names of places; found some words difficult	Yes	Yes	Yes	Yes	Yes
Used strategy-break words into	Yes	Yes	Yes	Yes	Yes

parts; sound them out; put together
again

Thought sounding out words was a useful strategy	Yes	Yes	Yes	Yes	Yes
Fully understood the text	No	No	No	No	No
Knew about text features	Yes	Yes	Did not say	Yes	Did not say
Phonics intervention program helped	Yes	Yes	Yes	Yes	Yes

The interview was semi-structured in that each student was asked similar questions (see Appendix F). Additional questions were asked when the need arose. As illustrated in Table 10, several patterns were revealed by the majority of the students.

- Prior knowledge of Latin America was limited or non-existent.
- Names of places were difficult to read.
- The major strategy employed to read words was to break words into parts and sound them out, and then put the parts back together.
- Several students admitted that even sounding out words did not necessarily help them to understand the word.
- Overall, the students said that they did not fully understand what they had read.
- Most of the students knew about text features (such as maps, charts, and captions).

- Each student found that participation in the phonics intervention program was helpful and that he or she was a better reader for having been a part of it.

Session III: Member Check

I used this final session with the students to clarify their answers to interview questions and to find out what information they recalled after the lapse of several days between the date of the initial reading of the text and the date of the Member Check.

Table 11 shows the prior knowledge that the students brought to this reading situation, the number of days between reading the text and recalling information from the text, and what the students recalled.

Table 11

Recall of Information

Student	Prior Knowledge	Date Asked	Read Aloud	Days Betw.	Member Check	Days Between	Recall
Roy	Parents and friends from Latin America; Has been to Peru	10/18	10/27	10	11/10	15	America got into many wars and helped them out and became our allies. We won Texas from Mexico.
Thomas	Nothing	10/10	10/18	9	11/9	23	Panama Canal
Ivy	Nothing	10/10	10/27	8	11/9	14	Latin America
Victor	Nothing	10/10	10/27	8	11/9	14	There were a lot

							of wars to take over land and a Great Depression. Read about Latin America.
Eva	Nothing	10/10	10/18	9	11/9	23	Read about Europe in the 1800s

Note. The Days Between column indicates the number of days between the day the text was read aloud and the day of the Member Check.

Table 11 reveals that only Roy had prior knowledge of Latin America. After 14 to 23 days from the date of the oral reading, students were asked what they could remember from the read aloud session. It is evident from the Recall column that the students remembered few details from the social studies informational text after 14 to 23 days. Roy recalled the most information while Thomas and Ivy remembered only a few words. Victor's recall was generalized, and Eva's recall was incorrect.

Reading rate.

I obtained a word per minute rate for the students by listening to the audio tape as each student read the same text for one minute. Rate or speed of reading reflects fluency.

Table 12

Words Read per Minute	
Student	Words per Minute
Roy	83
Thomas	79
Ivy	68
Victor	82
Eva	49

Table 12 illustrates speed as one part of fluency for the students in the study. Eva persevered throughout the read aloud to sound out unfamiliar words as she broke them apart and put them together to make the new word. The other students predominantly called difficult words by similar looking or sounding words. Eva's rate was the slowest. Roy's rate was the fastest, closely followed by Victor who read the text very rapidly without stopping at punctuation marks. Thomas was third followed by Ivy. Roy, Thomas, Ivy, and Victor generally read at about the same rate. Only Eva, who spent time sounding out the words, read at almost half the rate of the other students. Typical reading rates of words per minute for sixth grade students would be, depending on the researcher, 180 to 220 words per minute, while first grade students would read 30-90 words per minute (Readinga-z.com, retrieved May 5, 2007). The students in this study fell far short of the sixth grade average and were more closely aligned to the first grade average.

Reading surveys.

The responses to the Reading Behaviors Survey (see Appendix H) and Reading Interest Survey (see Appendix I) are discussed in each of the case studies. The Reading Behaviors Survey (see Appendix C) gave students the opportunity to think about their metacognitive practices before, while, and after reading text. It presented statements to which students responded with always, sometimes, never, or not sure. The survey named common comprehension strategies, such as the use of context clues to read unfamiliar words, text structure, and picturing. Patterns that evolved indicated that students could focus their attention on the reading only some of the time; they sometimes used context clues; three of the five students always used picturing; and most of the students responded that they sometimes read additional materials from outside sources related to the topic. Three of the five students indicated that they sometimes know when they do not understand something. This particular response was evident in the study when students clearly stated that they did not understand what they read.

The Reading Interest Survey (see Appendix D) provided questions about number of books read and owned, kinds of books enjoyed, favorite authors, and how students felt about reading. Most of the students had developed a similar method of selecting a book in which they reviewed the cover or read the back, or skimmed the pages. Generally, the students exhibited through their responses an enjoyment of reading and offered book titles of books that they liked to read including *Holes*, *Lemony Snickett*, *Oliver Twist*, and books authored by Judy Blume and J. K. Rowling.

The Reading Interest Survey was associated with self-efficacy because it caused the students to think about their reading practices and level of enjoyment. Students wrote

that they were “OK” with reading or “It is fun.” These positive expressions about reading led to a sense of success that empowered students to participate in reading, not only in school, but also as a personal pastime. Responses indicated that students read anywhere from four to twenty books in the last year.

Case Studies

Each student is presented as a case study in order to give a clearer understanding of how that student interacted with the informational text.

Roy

Roy was a male of Hispanic descent. In kindergarten Roy was tested for English for Speakers of Other Languages (ESOL) services; however, he tested at the independent level, and he did not receive services. He was an articulate seventh grade student. For example, he was studying French, Spanish, and English because, he reasoned, that knowing three languages will help him get a better job. Roy scored Proficient on the 2006 Reading State School Assessment, and was listed as On Level in reading on the fourth quarter sixth grade report card. Roy scored a stanine of two on the standardized reading comprehension test, Degrees of Reading Power (DRP) test, administered at the beginning of sixth grade, and he scored a stanine of three when the same test, different form, was administered at the end of sixth grade. Both scores placed him as a below level reader.

On the flashed portion of the Stieglitz Graded Words in Isolation Test, Roy attained a 100% on Grade Two only. He reached a 75% at Grade Five. His baseline, then, is at second grade, and he reached his ceiling at Grade Five text. Although Roy

achieved 80% accuracy on the Grade Seven list, he did not reach the 100% score at his current seventh grade level, instead only attaining 65%.

Through miscue analysis, it became evident that Roy could sound out words correctly when given more time to do so. For example, on the Third Grade List, he called the word *treat* as *threat*, but when he returned to the list, he was able to say the word *treat* correctly. A common error throughout the test was to call the word by another that had similar letters. Examples included Grade Four *hoarse* was called *house*, Grade Five *shrewd* was called *shed*, Grade Six *appreciation* was called *operation*, Grade Seven *vicinity* was called *victim*, and Grade Eight *exhilarating* was called *exhale*.

The phonics intervention program, Roy claimed, helped him learn about vowels and other “stuff.” He stated that he is *better* because he was made fun of due to his slow reading, implying now that is no longer the case. On the Likert scale, Roy identified himself as a Fair reader before the phonics intervention program and a Very Good reader after completing the program.

I wanted to know about Roy’s prior knowledge of Latin America. Roy asked if I meant South America, and I indicated that South America would be part of Latin America. He shared with me that his mom is Peruvian and his dad is Salvadoran. He had visited Peru, and he said that it was nice there. He was also familiar with the way the writing of the language is different than English. Roy explained that an exclamation point is placed before and after sentences. I asked if he had studied Latin America in school, and he responded that he studied a mixture of areas last year, but that this year he was studying French. It is likely that he was referring to a new program that explores

world languages because he continued to tell me that he wanted to know three languages (French, Spanish, and English) in order to get a better job.

Roy read aloud without expression and exhibited the same reading errors as was evident in the Graded Words in Isolation Test. He frequently called a word by another that had similar beginning and ending letters. He read *gnawed* as *gone*, *olive* as *oval*, *threatened* as *treatment*, *reconquer* as *require*, *expanded* as *explained*, *debts* as *debits*. Roy attempted to read the word, *Isthmus*, but called it by a non-word, *Ishmusan*. General miscues included repetitions (repeated Canal), substitutions (read *explained* for *expanded*), self-corrections (read *Depression* as *desperation* and then corrected it), and omissions (read *had to give* as “had give”). He frequently left off the endings of words. Roy read *imperialism* by sounding it out, and then repeated it as if he were unsure that this was indeed the word. The same was true with *industrialized*. He said it correctly, and then repeated it.

Roy offered many comments on the reading when he stopped at the adhesive note cues and thought about what he had read, and he was able to make connections to the text by thinking about what he knew and linking the new information to it. For example, when he read about the Nobel Prize, he commented, “I know about Nobel Prize. Like, I think you get it, like you can answer one thing each year, like of your article....” He frequently commented upon information that was new to him. He read about the Mexican War and said, “I didn’t know Texas was part of Mexico, but, they like, it’s interesting how, like, Mexico didn’t want the United States to have Texas, so we fought the war and took it but...that’s interesting.” He expanded the idea by openly stating that he wondered how America fought many different wars to help everybody else.

It's, like, I never knew that there was a war fought between America and Spain to help free all the other countries that's under their control. And I just was wondering how America fought many different wars to help everybody else, you know, help if they needed it.

He wondered again when he read that President Roosevelt offered \$10 million for the land for the Panama Canal, and he made a guess as to the reason for the offer, "I wonder why President Roosevelt offered \$10 million to get part of the land—probably because he wanted to expand the land for them, and the Latin Americans are scared of the United States."

Roy was able to use the information to make predictions and inferences. When he read about Simon Bolivar, he said, "I think he is, like, a leader in Latin America, and, like, I didn't know that Latin America thought the United States was a model for them. So, like, I learned something now." Roy was able to paraphrase when he read that the United States was the chief trading partner of Latin American nations. He said, "About that, is that the President is now withdrawing the soldiers from Haiti and they're saying that the Latin Americans are friends and they shouldn't external, internal any other states of Latin America." Sometimes, as in this quote, the paraphrasing became somewhat confused.

In some instances, when Roy stopped to explain the text, his interpretation of what he read was unclear. For example, when he read a portion about the hate that South Americans felt toward the United States, he said, "Right there, I noticed that America has been, like, taxing most of South America, and I know most of these countries because I heard about them." He continued, "Like how America was very convincing because they

helped out everybody and like everybody now is helping out them.” That interpretation was different than the facts in the text.

Roy admitted that he knew that he had mispronounced words and that he had to read slowly, but he felt that he knew many of the countries he was reading about, and that made it easier for him to understand the selection. He stated in reference to the text, “But I understood it because I knew most of the countries and the history about them so it was easier for me to understand about Latin America.” In this statement, Roy was addressing his prior knowledge that he claimed helped him comprehend.

On the comprehension check, Roy obtained a score of 50% with two answers that were incorrect, one inference and one recall and two answers that were correct, main idea and vocabulary. When interviewed after the comprehension check, Roy stated that he knew a lot about Latin America, but he did not know how the United States was involved with Latin America. He indicated that he used the titles, subtitles, and photos in the text that told him the topic of the selection that he read. He found the text to be moderately difficult, which he attributed to his weakness in reading out loud. He said, “...but it’s just I’m not very used to reading out loud. That’s one of my weaknesses.” This statement underscores Roy’s reflective nature. Roy also recalled the most accurate and detailed information after 15 days from the initial reading of the text.

When reflecting on reading the words in the textbook, Roy was clearly able to articulate the strategies that he used to read the words. He said, “I first sound out the beginning and put them into sections like parts I can read, and then put them all together.” He found that this strategy helped him figure out words, and where once this

strategy was difficult for him, it is now easy. Roy said that he uses this strategy when he reads books but that he also skips words until the end, and then returns to them.

I wanted to know how Roy felt about completing the phonics intervention program in sixth grade. He indicated that without the program, he would not have been able to read a paragraph of this selection. He continued, “It makes me feel proud of myself because if I hadn’t had this, I probably couldn’t read that well, but now I know what to expect and what to read.”

Roy’s responses on the Reading Interest Survey (see Appendix D and Appendix I) indicated that he owns books, and he has read six books in the last year. He stated that to be a good reader, someone would have to know how to pronounce words. Roy claimed to like reading, but he shared that he spends only 20 minutes a week reading. He averages 40 hours per week watching television.

Roy’s Reading Behaviors Survey (see Appendix C and Appendix H) responses revealed a picture of the strategies that he applies to text. For example, he indicated that he sometimes thinks about the topic and purpose of reading before he reads; however, he never decides which strategies would be appropriate to use. He claimed that while he is reading, he always makes predictions and uses “fix-up” strategies when he does not understand something. He also always uses visualizing when reading. After reading, he stated that he always summarizes the major ideas and reads additional outside material on the same topic. Roy, in fact, was able to summarize the text, but his think aloud did not reveal his use of prediction. Roy did articulate the “fix-up” strategy of skipping a difficult word and returning to it later.

Roy indicated on the survey that he does not think about the strategies that would apply to text before he reads, but he is able to articulate the one strategy that he clearly applied. That is, he breaks words into parts, sounds them out, and puts them back together. He was able to link his prior knowledge to his ability to understand the text in the textbook. Since he indicated in the survey that good readers have to know how to pronounce words, and Roy considers himself to be a very good reader, he is supporting that notion by utilizing the sounding out strategy to read words.

Thomas

Thomas was a male of Hispanic descent. He was quiet-spoken, and throughout the session, he only responded to questions in short or one-word answers. He did not offer any extra information. Thomas spoke little of his family but indicated that he had friends from Latin America. His records indicated that he had some ESOL services in elementary school, but the extent of the service and service dates were unclear. He was not receiving ESOL services in middle school. Thomas scored Proficient on the 2006 Reading State School Assessment, and was marked On Level in reading in fourth quarter of sixth grade. He attained a stanine of three on the Degrees of Reading Power test that was administered at the beginning of grade six that placed him in the below level range. When he took another form of the same test at the end of sixth grade, he scored a stanine of four, placing him on the low side of On Level reading students. The score indicates that Thomas improved in reading ability.

Like Roy, Thomas scored 100% at Grade Two on the Graded Words in Isolation Test. He reached his ceiling at Grade Six, achieving 45%. On the Grade Seven list, he scored 35%. Thomas called words on the list by other words that looked similar. On the

third grade list, he called *nibble* as *noble* and *scratch* as *starch*. He continued making these same errors until the Grade Six list when he could not read flashed words such as *sympathy*, *politician*, *slouch*, and *quantity*. At Grade Seven, he missed 13 words when flashed and was only able to correct two, *evaluate* and *interpretation*.

Thomas did not want to write his answer to the question regarding his perception of himself as a reader, choosing instead to dictate it to me. He felt that participating in a phonics program affected him "...a lot because at first I couldn't read, but now I read fine, better than last year." Thomas admitted through his dictation that he does not like reading, but he does not really have a choice. Thomas did not choose to elaborate on this statement. I must assume that he is referring to the fact that he is required to read in school, and that is why he "...does not really have a choice."

On the Likert scale, he considered himself to be a Fair reader prior to the phonics intervention program, and a Very Good reader after completing the program. Thomas stated that he knew nothing about Latin America, had never heard of Latin America, did not know anyone from Latin America, and had never read anything about Latin America.

Thomas was the second student in this session to read aloud, and I had not yet inserted the adhesive notes to cue him to stop and think aloud. Thomas only stopped to think aloud three times, and that was when I stopped him. Since it was evident that he was not going to stop and think aloud as I had modeled, I asked him to stop just after he read about the Panama Canal. He was able to tell me the topic, but he offered no other information. I asked if the pictures on the page or anything other than pictures helped him, and he simply answered, "No." He continued reading, now about the Spanish-American War. I stopped him once again and asked him to think aloud to tell me about

what he had read. He was able to correctly tell me that the United States was fighting to claim more territories. I asked, “Is there anything that helps you understand that, anything that the author/publisher does to help you understand what you’re reading?” He responded, “This picture.” I asked him to tell me the topic of the picture, and he correctly said, “Central America.” Actually, the picture was a map. I asked, “So you see some of the countries?” His response was, “Yes.” Thomas came to the end of the selection, and I asked him if there was anything that he wanted to say, and he responded, “No.”

Thomas’s oral reading of the selection had miscues including, with examples, omissions (read *Europe* for *European*), insertions (read *Caribbean Sea* for *Caribbean and*), self corrections (read *the* for *they* and then corrected it), and substitutions (read *expanded* for *extended*). He had stated that he found the words difficult, and this fact became evident as he made pronunciation errors such as: *first* for *fierce*, *direction* for *doctrine*, *Morrow* for *Monroe*, *expanded* for *extended*, *federal* for *financial*, *Dominican* for *dominant*, *Islam* for *Isthmus*, and more. He gave up on some words like *Venezuela*. For *commercial*, he was only able to say the first syllable, *com-*. Thomas more often omitted a word or called it by a word that looked similar instead of attempting to sound it out. For example, he read the text sentence, “President Theodore Roosevelt offered Colombia \$10 million for a strip of land across the Isthmus of Panama,” as, “President Theodore Roosevelt offered Colombia 10 million for a strip of land across the Islam of Panama.” He omitted the word “dollars” for the dollar sign (\$), and he read *Isthmus* as *Islam*.

The comprehension check that followed the read aloud session resulted in a 25% score. Thomas missed the main idea, inference, and vocabulary questions. He got the one general recall question correct.

The semi-structured interview with Thomas that followed the read and think aloud underscored his reliance on what he had learned about sounding out words in the phonics intervention program. He stated that he did not understand the big words in this selection. He said, “Those big words – I didn’t understand them.” I asked, “What thought processes did you use to try and understand the words on the page?” He responded, “Sounding each one out.” He said that if he cannot read a word, he reads the next word to see if it should be what the other word should be [perhaps relying on context here], but he finds this process difficult. I asked, “Why do you think it’s hard to kind of sound out the words and think about the next word and so on?” He stated, “I don’t know what sound or how that part is going to be.” Thomas claimed that he uses this process in other content classes like science and social studies, and probably uses it everyday.

I asked Thomas, “Did you stop and think at all while you were reading? Did you make any use of the pictures or maps? You looked at those?” He responded, “Yeah,” and I probed further, “Were there any other things that the textbook offered to you that helped you to understand what you were reading? His response was, “No.” Thomas admitted that he only partially understood what he had read. He felt that participating in the phonics intervention program was helpful because he would not have known the sounds of the words without it. Thomas revealed that knowing how to read words in textbooks made him feel good.

On the Reading Interest Survey (see Appendix D and Appendix I), Thomas identified no particular method of selecting a book to read, although he did indicate that he reads better than last year. He has read four books in the last year. He reported that he watches 100 hours of TV a week and reads two hours per week. He owns books, he claimed that his mother loves to read, and he noted that a good reader is one who practices a lot.

The Reading Behaviors Survey (see Appendix C and Appendix H) revealed that before reading, Thomas always thinks about what he knows about the topic; however, while he reads, he never makes predictions about what will happen next. Like Roy, he claimed to always visualize while reading to help him understand. After reading, he is unsure if he is able to summarize the major ideas.

Thomas alluded to the use of context clues as a reading strategy. He found the words in this social studies text rather difficult. He relied on sounding out words, but he admitted that he may not understand the words that he has read. His 25% comprehension score would support his claim on the survey that he does not know if he is able to summarize major ideas. Thomas spends a great deal more time watching television per week than reading; however, he stated that a good reader practices a lot. He does not like to read, and that attitude may give cause to the small amount of time he chooses to read.

Ivy

Ivy was an African American female. She was the only student in the sample to have an Individualized Education Plan (IEP) that would indicate that she receives special education services. Her IEP was in reading comprehension. Although she scored Proficient on the sixth grade administration of the State School Assessment, she scored in

the below level range on the Degrees of Reading Power test on both the pre and post testing in sixth grade. At the end of sixth grade, she was marked Below Level in reading on her report card. Ivy was very articulate, and expressed that she sees definite improvement in her reading due to her participation in the phonics intervention program.

Ivy was unable to attain 100% at the second grade level where we began the testing. At second grade, she missed one word, *I'd*, and pronounced it as *id* on the flashed test. She was still unable to say it correctly on the delayed portion of the test. As a result, it was necessary to drop to first grade where she did reach an accuracy rate of 100% on the flashed test. She maintained accuracy at 95% at grades two, three, and four, and then attained 85% at grade five. At grade six her accuracy was 65%. Her ceiling, then, is about a sixth grade level. Although she missed one, two, or three words on the grade three, four, or five lists, she was able to self-correct. She corrected *represent*, *fortunate*, *manufacturer*, and *dreary* on the delayed portion of the test. Once on the sixth and seventh grade lists, her ability to self-correct lessened as she was unable to correctly read words such as *quantity*, *unconscious*, *mayonnaise*, *resemblance*, and *interpretation*.

I asked Ivy what she knew about Latin America, and her response was, "I don't know." I asked if she had heard of Latin America, and she responded that she knew about Rome but not Latin America. She said that all she knew about Latin America was that they speak different languages, but she had not studied Latin America; her class is studying Rome.

Ivy was very explicit in her assessment of herself as a reader. She indicated that before she started the program, she skipped words and did not try to sound them out, or she would get frustrated with herself and just tell herself to "forget it." She shared that

the teacher of the phonics intervention program told the students that it would “take time and practice to be a better reader.” Ivy wrote about the teacher of the program, “She also said that we don’t just rush through things and say that it is over, I will be the fastest reader in the world. She said it won’t be that.”

The places to stop and think aloud for Ivy were marked with an adhesive note. The first break occurred after the portion on the Panama Canal, and Ivy stopped to think aloud at the marked place in the text. She repeated the last fact that was offered in the text, referring to the number of workers needed to build the Panama Canal. I asked, “Was there anything that helped you understand what you read, anything that you see or anything that you did to help you understand?” She replied, “I stopped and then looked over the word before I read it.” Although I had anticipated some response that might reveal a thought process concerning comprehension strategies, instead, Ivy’s response was at the word level and how she understood the words, not the passage. At the next break, she attempted to do the same thing by repeating a fact that she had read, but she was incorrect. She said, “And I heard that Latin America, it was like a model for the United States and history was a mankind.” Her statement was inaccurate and confused. She continued reading and stopped several more times at the appointed places.

Ivy was never able to move beyond summarization of the text. At each cue in the text to stop and think aloud, she summarized what she had just read. She responded to what was in her immediate short term memory. When she read that Latin Americans felt that the United States had fought the Spanish American War to win new territories, she said, “And I heard that in the Spanish War they were fighting for independence and Cuba was won the war, and the United States forced them to include the Platt Amendment.”

She admitted that she did not understand the Platt Amendment. At one part of the reading that discussed the “Yankee menace,” Ivy’s summation was inaccurate. She said, “And this is about fear for your neighbors or that Yankee memor [sic].” I asked her if she understood the words, and she responded that she did not understand the words.

After several summaries of the text, I asked, “Was there anything that helped you to understand that portion that you just read?” I had hoped to hear something about text features or thought processes, but instead, she answered, “Like, how did the wars get started, how they began? ...I could understand more, so like it won’t seem like they just...they just do it.” Her response was unclear. I did not observe Ivy making use of the photos, captions, or maps that were available in the text to assist with the reading.

Ivy read with fluency until she came to some unfamiliar words, of which there were many. Her errors included, with examples, substitutions (reading *brightness* for *bitterness*), mispronunciations (reading *anneted* for *annexed*), and repetitions (repeated *tracts*), but few omissions (mostly word endings) and few insertions. Typical errors of substitution included *pot* for *poet*, *newed oil* for *gnawed olive*, *anneted* (a non-word) for *annexed*, *brightness* for *bitterness*, *consituation* (a non-word) for *constitution*, *finalists* for *financial*, *anonymous* for *Isthmus*, and *debts* for *debts*. The non-words were obvious attempts to sound out the actual word, but the effort did not yield an intelligible word.

The comprehension check that followed the read aloud offered a glimpse into Ivy’s ability to comprehend. Her score was only 25%. The one question that she got correct was the inference question. Ivy’s score and confusion in summarizing the text is in keeping with her Individual Education Plan (IEP) in comprehension that warranted Special Education services.

The interview that followed revealed that Ivy knew little about Latin America prior to reading the selection. She thought that she had heard of the wars. She found the selection part easy and part hard because she did not know the words, but she could not say if knowing the words before she read would have made it easier to understand. Ivy said that in order to process the words, she broke the words in parts and sounded them out. She chose to use this strategy because she felt that it would help her to understand the words and to make more sense of them. Ivy claimed that she uses this process in other classes, especially in social studies. She thought that she understood what she read fairly well because she knew some things and she learned some new things.

Ivy stated that textbooks in her other subjects are not as large as the one from which she was reading. She commented that in social studies, the books are thin, but the words can be difficult. She stated that completing the phonics intervention program in sixth grade helped her read better because she would skip over unknown words and ignore them, but now she sounds them out. When asked how it made her feel to be able to read the words in a textbook like this big one, she replied, “It makes me feel proud of myself because last time when I wasn’t in this, it was very bad because I didn’t understand it, and I would get bad grades on it.”

Ivy indicated on the Reading Interest Survey (see Appendix D and Appendix I) that she owns books and has read seven books in the last year. Her family members enjoy reading, and she spends two days a week reading. She claimed to be a confident reader and states that a good reader stays on task. Ivy views reading as fun. She watches two hours of television per week.

Ivy's Reading Behaviors Survey (see Appendix C and Appendix H) revealed that she always knows her purpose for reading. While reading, she always knows when she does not understand something, she always makes predictions about what will happen next, she always uses "fix-up" strategies when she does not understand something, and she uses visualizing as a strategy. After reading, Ivy indicated that she thinks about what she read, and she is able to summarize major ideas. She specified that she knew that her reading success was the direct result of her efforts. Ivy's actual reading of the social studies text did not support her responses on the survey regarding the use of strategies. She was, however, aware that she did not always understand what she read.

In the think aloud portion of the study that was intended to reveal thought processes related to comprehension, Ivy relied heavily on summary of what was read by paraphrasing the text. Many of her summations were wrong or contained errors in the facts, in part because she was misreading some of the more difficult words. For example, when she read about *investments* she apparently did not understand the word when she said in her summary, "This part was about how invertnet and interventions, they're talking about how well their countries were...."

Ivy used what she learned in the phonics intervention program to help her read. She breaks words apart, sounds them out, and puts them back together again, but even with the application of this skill, she continues to find the big words difficult. Her score on the comprehension check following the read aloud portion of the study was the lowest of any of the students. Yet, Ivy claimed that with her ability to break words into parts and say them she was a better reader and a good student.

Victor

Victor was an African American male. The sixth grade pre and post administrations of the Degrees of Reading Power (DRP) test indicated that Victor was on level in reading. Although he scored Basic on the sixth grade administration of the reading State School Assessment, he was marked On Level in reading at the end of sixth grade. Victor rushed through the reading of the social studies text. He stated that he likes to read novels and will read a novel when assigned to bring one to class.

Like most of the other students, Victor scored 100% at Grade Two on the Graded Words in Isolation List. He reached the ceiling of 75% at Grade Seven, making him the only male student of the sample to score at grade level. At third grade, he missed the word *usual* on the flashed portion of the test, but was able to self-correct when we returned to the word. As the words grew more difficult on subsequent lists, his ability to self-correct diminished. Victor was unable to correct *hoarse*, *conquer*, *manufacturer*, *shrewd*, *collision*, *vicinity*; however, he was able to correct *sophisticated* and *repetition* on the Grade Eight list.

Victor knew very little about Latin America. He had never been to Latin America, and he did not know anyone from Latin America. He thought that France and Russia were located there. He said that he read about Latin America in social studies, but he was unable to recall any facts.

Victor, too, attributed his success in the phonics intervention program to the teacher. He was the only student who considered himself to be a good reader before the program and a very good reader afterwards. He indicated that participation in the

program made him a better reader because prior to the intervention program, it was hard for him to read words, but now he likes to read harder books on his level.

The social studies text that Victor read had the adhesive notes to indicate where he should stop and think aloud. Victor summarized correctly at each cue to think aloud. He began with either, “I read...” or “I learned....” He stopped after reading about Panama, and he gave a very brief summary of what he read, indicating that the people needed to find work. He said, “So far, I read things about Panama and its workers need, well, they need to find work, and people are criticizing.” The next section of the text discussed the United States as a great power that threatened the independence of Panama. Victor simply repeated the last portion of the text regarding the threat to independence. In one instance he commented on what he had learned when he read about the United States during the Depression under Franklin Roosevelt and that it was the chief trading partner of most Latin American nations. He stated, “I read that, I know that there was this Great Depression, and I know that Franklin D. Roosevelt was the President. I didn’t know that the United States took a lot of power. And that’s it.” Victor was frequently offered the opportunity to talk further about what he had read, but he had nothing more to say. He did not wish to discuss the text features or any other aids to comprehension.

The hallmark of Victor’s oral reading was the failure to stop or pause at punctuation marks. As a result, he read rapidly and in a monotone with no expression. This pattern persisted throughout the read and think aloud session. Most of his errors were substitutions—he would call a word by another that looked similar. For example, he read *Colossus* as *Collusions*, *Amendment* as *admitted*, *debts* as *debits*, *Panama* as *Panamania*, and *commercial* as *chemical*. There were several repetitions (repeating

Spanish in *Spanish-American*), and self-corrections (reading *railings* for *railroad* and then correcting the word), but few omissions (primarily leaving off endings as *America* for *Americans* or *resent* for *resented*) or insertions. In some instances, Victor attempted to sound out the word but simply created a non-word as in *democracion* for *democratic*, *interverse* for *intervene*, *isthe* for *Isthmus*, or *consituation* for *constitution*.

The comprehension check followed the oral reading. Victor scored 75%, which was the highest score. He missed the main idea question.

I began the interview with a question about what Victor knew about Latin America. Like his previous answer to this question, he said that he did not know about Latin America, but then he went on to say that he might know of a few places there because he has friends from Panama and Chile. When asked if the passage was easy or difficult for him, he was indecisive, although he did state that the words were difficult for him. He found the names of places especially difficult, like *Nicaragua*. I asked what he did to understand the difficult words, and he responded that he sounded them out. He uses this method, he said, in other classes as well. I probed further to find out if he ever stopped and thought about what he was reading when he read a textbook. He quickly answered, "No," but he admitted that doing so when reading during the read and think aloud portion of the study was helpful. He offered another strategy that he uses of accessing a dictionary for meaning. He did not have a dictionary in this study, so I asked if he ever used a part of the book that had a dictionary. He responded that he used a glossary; however, I did not see him attempt to use the glossary of this textbook when reading aloud.

I asked Victor why he sounded out difficult words, and he answered that it helps him to know the word. He considered this process difficult because even with sounding out the word, he still did not know some of the words. I followed his comment by asking him to tell me if knowing the difficult words before he read the text would have made a difference for him in his ability to read and understand, and he thought that it would.

Victor thought that sounding out words helped him somewhat to understand the words on the pages he read. I asked if he used subtitles, photos, or captions to assist his reading. He replied that he used subtitles, and he went back to see what he read. From my observation, he looked back when he was involved in the think aloud, but it was unclear to me as to whether or not he was using the subtitles, photos, or captions for comprehension. He did not feel that he understood the text that well, and if he had to read this same text again, he would try to learn more of the words. He indicated that his literature book was about the size of this textbook, and I asked if his teachers do anything to help him understand difficult words before reading. He answered an emphatic, "No." He was clear about the fact that even when he sounds out words, he still may not know if he is saying the words correctly and that any assistance his teachers could provide with reading difficult words before the reading assignment would help him to better understand the text. Even though Victor clearly verbalized the technique of sounding out words, in his actual reading, it appeared that he would call an unknown word by another word of similar spelling.

I wanted to know if participation in the phonics intervention program made a difference for him. Victor said that it helped him to read more. Before the program, he did not like to read, but now he can pronounce more words. He likes to read books,

especially *A Series of Unfortunate Events*. Most recently he read *The Lion, the Witch, and the Wardrobe*. He reads on his own time and when he is asked to bring a book to class to read. He reiterated that it is the big words that cause him problems. He says, “It just don’t make sense to me.”

Victor revealed on his Reading Interest Survey (see Appendix D and Appendix I) that his household has 300 books, and he personally owns 13 books. These numbers were more than any other student in the study. People in his family enjoy reading, and he reads about 40 minutes a week. He stated that he is not a fluent reader, but he is “OK” with reading. He watches about three to six hours of television per week.

Victor shared on the Reading Behaviors Survey (see Appendix C and Appendix H) that before reading, he never decides which reading strategies would be appropriate to use. While reading, he always knows when he does not understand something. He never uses “fix-up” strategies when he does not understand something, he never uses context clues to understand new words, he never uses text structure, and he never visualizes. After reading, he is never able to summarize the major ideas.

In fact, Victor was able to summarize during the think aloud. His summaries were accurate, for the most part. He prefaced his summaries with *I read* or *I learned*, but in either instance, he paraphrased what was previously read. When he read about the war with Mexico, he said, “I read that there was a war between Mexicans and the United States. They’re trying to expand their power so that they can.... I learned that the United States took almost half their territory; and that’s it.”

Victor offered one statement during the think aloud where he commented on new knowledge. He said, “I read that, I know that there was this great depression, and I know

that Franklin D. Roosevelt was the president. I didn't know that the United States took a lot of power." This statement was his only departure from summary or paraphrase.

Eva

Eva was a female of Hispanic descent. She had English for Speakers of Other Languages (ESOL) services in elementary school in 2001-02 when she was in second grade. Eva did not receive ESOL services in middle school; she was not considered an English Language Learner (ELL). Eva scored below level on the sixth grade pre test of the Degrees of Reading Power (DRP) test but scored on level on the post test. She was marked on level in reading at the end of sixth grade and scored Proficient on the sixth grade administration of the reading State School Assessment. Eva considered herself to be an improved reader due to her participation in the phonics intervention program.

Eva's mother was the one parent who attended the parents' information night that was part of this study. A translator interpreted our conversation. The teacher informant in this study had indicated to me that Eva was insistent that her mother attend that evening meeting, and her mother was able to rearrange her work schedule to be present.

Eva reached a 100% baseline at Grade Three on the Graded Words List that was higher than the other students in the study. Her Grade Six score was 85%, which dropped to 50% at Grade Seven, causing her ceiling to be at about Grade Seven text. When Eva came to an unfamiliar word, she simply said, "I don't know." This was the case for such words as *fortunate* on Grade Four, *manufacturer* and *prehistoric* on Grade Five, and *sophisticated* on Grade Seven. As the words became more difficult, Eva did make attempts to sound them out, particularly on the Grade Seven list with *promotion* for

prominent, rebalance for resemblance, and interruption for interpretation. She followed the pattern of calling the word by a similar looking word.

Eva wrote that she was a fair reader before completing the phonics intervention program, but now she is somewhere between good and very good. She could not understand what she was reading before the program, but afterwards, she understood what she was reading, and she was able to read out loud without much help. Sometimes, she said, she reads fluently. Eva is particularly proud of the fact that now she is able to raise her hand when the teacher asks who can read a word. She is able to sound out the word or, "...read it off the top of my head because now I know what the sounds are."

Eva was asked if she knew anything about the countries in Latin America. Her response was, "North America, South America." I asked if she knew anything about Latin America or its history. She indicated that she did not know anything.

Eva made a considerable number of errors when reading orally including omissions (reading "...as model," instead of *as a model*), repetitions (repeating *colonies* in ...its former American colonies), substitutions (reading, "*It proceeded...*" instead of *It promised*), insertions (reading "*In the 1898...*" instead of *In 1898*), and self-corrections (reading "...*Mexico War*" for *Mexican War* and then correcting the error). She called many words by a similar word, such as *require* for *reconquer*, *Monarch* for *Monroe*, *Doctor* for *Doctrine*, *district* for *distrust*, *highlighted* for *heightened*, *mills* for *mines*, and *religion* for *region*. Eva was able to read some difficult words but repeated them as if to be sure that she said them correctly. Repeated words included *Colossus*, *colonies*, *Mexican*, *constitution*, and *Dominican Republic*. She made an effort to sound out words like *ishma-* for *Isthmus* or *Yanekee* for *Yankee*.

Eva was the first student of the sample to read aloud, and I had not marked the places to stop and think aloud. It became evident that I would have to stop her in order to get her to think aloud while reading the text. She first stopped after reading about the Spanish-American War. When she read about the territories gained by the United States, she summarized first by saying, “That America just wanted to fight Spanish to get more land,” and then she continued with her summary, “and they absolutely did get more land.” Eva inferred only one other time when she read about the killing of Nicaraguans. After reading about American forces in Nicaragua and Haiti that protected American interests and killed Nicaraguans, Eva interacted with the text by saying, “Maybe they just had the land and they shouldn’t just have killed them. They should just ask them to leave.” I asked Eva how well she thought she understood what she had read. She indicated that she felt poorly about the understanding because she did not know the words. When Eva completed the reading of the passage, I asked if she wanted to say anything more as she thought aloud about what she read. Her answer was, “No.”

The comprehension check followed the oral reading. Eva received a score of 25%. She missed the inference, vocabulary, and a general recall question, and she got the main idea question correct.

The interview followed the comprehension check. I asked Eva what she knew about the topic prior to reading, and she said that she did not know anything about the topic. She found the text difficult because of the words. Eva did not provide much insight into her comprehension thought processes, and I decided to probe again, asking, “I’d like you to think about how you think. What thought process or processes did you use to understand these pages?” She responded, I guess I just sounded out the words and

if they made sense, then I kind of knew the topic of this.” I followed her response with another question that might lead her to speak about her thought processes, “Is there any other kind of a strategy that you used to read the words or to understand the words?” Eva answered, “Sounding it out or saying the words that I think is closest to it.” Eva revealed that she was taught this method, “...and I think it stuck in my head.” She uses this process everyday, especially in social studies. Eva thought that she only half understood what she had read. I attempted to probe one more time during the interview about comprehension. I said, “Let me just ask you a little bit about comprehending. Are there any specific strategies that you used to help you understand the words? You talked to me a lot about sounding them out, but how about putting them altogether so that you could understand what it was saying?” The response was the same, “I broke them apart and then put them together.”

When asked about text feature use, Eva said she did make use of the maps and that the maps showed the parts of the world that were conquered by America. She could only recall after the oral reading session that the topic was Latin America and the war between Latin Americans and America, nothing more.

I questioned Eva about the value of participating in a phonics intervention program. She said that she found it helpful because now she can sound out and understand words. She finds reading a textbook easier now.

On the Reading Interest Survey (see Appendix D and Appendix I), Eva claimed that she read 50 books in the last 12 months, representing more books read than any other student in the sample. She indicated that a good reader practices, and she spends 30 minutes a week reading. She reads novels for pleasure each day. She does not consider

herself to be a good reader. Eva thinks reading is “OK.” She watches television about two hours per week.

Eva’s Reading Behaviors Survey (see Appendix C and Appendix H) showed that she always understands her purpose for reading. She sometimes makes predictions when reading, and she is always able to summarize the major ideas.

Although Eva indicated that she could sound out and understand words, she also stated that she did not understand what she had been reading in this text. Her comprehension score at 25% was one of the lower scores obtained, and she could recall only the topic of what she read with no further details. She knew nothing about Latin America before reading the text, and ultimately, she recalled nothing about it after reading the text. Eva was unable to articulate the use of comprehension strategies; however, she exhibited the ability to summarize and infer.

In Chapter V, results are discussed. Research and instructional implications will also be explored.

Chapter V

DISCUSSION

This study was designed to examine the reading processes of middle school readers as they read a selection from grade-level social studies text. Social studies text provides the opportunity for students to read critically for specific information and may offer challenges for middle school students who experience instructional interventions as a result of reading difficulties. Readers face challenges when reading informational texts, and those challenges are magnified when readers who experienced difficulty in the past are required to read more difficult, content laden text. Afflerbach and VanSledright (2001) indicated the need to better understand the challenges of reading history text and the strategies used by students in order to plan for better classroom instruction. Insights about how readers approach informational texts after they have experienced an intervention to improve their reading skills will help us understand how to provide support to struggling readers. In particular, a greater understanding of the strategies utilized by students who have participated in a phonics intervention program designed to improve general reading skills helps us learn how students construct meaning from unfamiliar social studies texts.

General Findings

The students in this study were selected to reflect the population of the students within their school who took part in an intensive phonics intervention program. They met the criteria for the sample of scoring Basic or Proficient on the State School Assessment in grade five or scoring at a 1, 2, 3, or 4 stanine on the Degrees of Reading Power (DRP) test in grade six. The pre and post DRP test scores given in sixth grade

showed an increase among all students in the sample. Only one student in the sample, Ivy, ended the year designated as below level in reading.

All of the students expressed a new confidence in reading. Eva defined a good reader as someone who reads fluently and knows what she or he is saying. She admitted that she does not always know what she is reading; therefore, she is not a good reader in her estimation. This revelation is contrary to her Likert scale results where she considered herself to be a very good reader.

The read aloud session gave a glimpse into how the students decode. The students equated speed of reading with fluency and being a good reader. Victor did not stop at periods in an effort to finish reading quickly. Roy wanted to get through the reading before his voice cracked, and as a result, he tried to read rapidly. The many unfamiliar and multisyllabic words in the text caused the students to slow their oral reading so that their reading rate was on par with that of a first grader. They gave up on sounding out words and chose instead to call words by similar looking words. Only Ivy injected some expression as she read aloud. The other students read in monotone.

The purpose of the think aloud as a data source was to reveal the thought processes of the students as they read aloud from the informational grade level social studies passage. The thought processes that would indicate that comprehension was occurring would be metacognitive as students thought aloud about their thinking. I expected to see evidence of summarizing, inferencing, paraphrasing, predicting, and questioning the text, and recall of information. I had also anticipated that students might use the text features, such as photos, captions, maps and charts, bold print, and subtitles that were abundant in this textbook to assist them with comprehension. I observed that

students' responses indicated they were able to summarize, infer, paraphrase, question, and predict. Three students linked to the text by tapping prior knowledge to help them explain new information from the passage. One student took particular note of the graphics, which he termed a picture but was actually a map. Roy commented on the fact that he knew of some of the Latin American countries and that knowledge made it easier for him to understand when he read the text. Their short-term recall immediately following the reading that was measured by an informal quiz revealed limited recall of information. Delayed recall that occurred approximately two weeks after the initial reading when students were asked what they remembered illustrated very little retention of information. Students recalled the topic title but little else.

Most of the students were focusing primarily on the printed word and did not connect the words to understand the broader concepts. It appears that dwelling on the word prevented the students from fully understanding the text and seeing the whole picture of the passage. This observation places the students closer to beginning readers whose unit of word recognition is the letter, which has no meaning (Samuels, LaBerge, & Bremer, 1978). Results from the comprehension check, member check, and errors in summation during the think aloud support the difficulty in comprehending the text. The students in this study knew that comprehension was failing because all of them articulated that they did not understand what they read due to the difficulty of the words. Students in this study simply did not know what to do when they sensed that their understanding was flawed. In contrast, successful readers realize a failure to comprehend and use appropriate reading strategies in order to understand (McLain, 1991).

To cope with the abundance of unfamiliar words in the text, the students soon abandoned the learned decoding strategy of breaking the word apart, sounding it out, and putting it back together, and tended to call an unfamiliar word by another word that closely resembled it (see Table 8). This reversion to a whole word approach after participating in a phonics intervention program was reflective of a similar case study of an adult struggling reader (Apel & Swank, 1999). Another decoding strategy that students employed was the application of context clues. Students were able to self correct their errors, both in words in isolation and within the text. Each student, at some time in the reading, returned to a word when he or she realized that it did not sound right in the sentence, but this behavior only occurred when students had some familiarity with the word or concepts presented in the text. Students were able to articulate the use of context clues, but when the word was not familiar to them or when the word was incorrectly decoded, the use of context broke down. As others have shown, context clues can be ineffective for decoding content words when students have no means of determining if the word that was spoken was actually correct (Ehri, 1998; Gough & Wren, 1998).

The interaction between the teacher and the students played an important role in how the students viewed reading as should be expected. Several students commented on the encouragement of the teacher of the phonics program. Ivy said that the teacher gave the students a purpose for learning to read well, “You have to read all through your life to get a good job.” Although Roy did not specifically name the teacher as a motivator, he did indicate that he wanted to learn to read well in order to get a good job. Students attributed their ability to break the words apart and identify syllables to the instruction of

the teacher. A supportive teacher coupled with a structured delivery may be an important ingredient for the success that students expressed at having completed the program. The National Institute of Child Health and Human Development [NICHD] (2000) noted that there is overwhelming evidence that many struggling readers make great progress in learning to read if they are given systematic decoding instruction. Furthermore, the intervention program appeared to help the students increase their self confidence. The students in this intensive phonics intervention program were taught in a systematic program so that the ability to attack an unknown word was in their grasp, and they felt good about the power that they now had over words. Their increased self-efficacy may have been foundational in motivating them to engage in higher levels of self-regulation (Schunk, 1991).

Theoretical Connections

The theoretical basis for the study rests on the link between three theoretical traditions: automaticity, self-efficacy, and metacognition. Participation in a phonics intervention program is purported to enable students to gain automaticity, the ability to read with speed and accuracy (sometimes referred to as fluency) and improve reading skills. Successful reading supports self-efficacy, the belief that one has control over a task. When students feel they are in control of the reading situation, they will make the effort to apply metacognitive strategies to gain comprehension. This is the foundation of the link of these theories. Each of these theories will be discussed as they relate to the study.

Automaticity: reading with fluency.

The premise of the phonics intervention program is that students learn to process words phonetically and effortlessly. Reading then becomes automatic. The speed of reading that would result would allow students to spend more time on comprehending the text and less time on decoding the text, and therefore be “automatic readers” (LaBerge & Samuels, 1974). Text that is used for practice in the phonics intervention program has controlled vocabulary (where the author controls the level of difficulty of the words) and is below grade level text. It would be considered easy reading and allows students to experience success as their speed of reading increases with the application of the newly acquired decoding skill.

In this study, students read grade level social studies text that contained difficult and unfamiliar words and concepts. Students in this study were not automatic readers when reading grade level social studies text. They made, on average, approximately 60 miscues or errors in the 771 word passage that slowed the reading process or interrupted comprehension (see Table 8). Eva made approximately 100 errors when reading the passage (see Table 8). The cognitive load of the words in this social studies selection was high (Hiebert, 2006). That is, there were numerous multisyllabic single-appearing words in the text that were not recognized automatically by readers and required conscious processing.

The students made limited use of sounding out words once they realized that the application of this process slowed their speed of reading. Instead, they called unknown words by similar looking words, often misreading the words. When students attempted

to summarize or paraphrase the text during the think aloud, their responses were often inaccurate or unclear because they did not understand the words they had read.

Reading fluency, as an aspect of automaticity, is defined as the ability to decode and comprehend at the same time (Samuels, 2006). Speed, accuracy, and prosody are indicators of fluency. The critical test of fluency according to Samuels (2006) is the ability to decode a text and to understand it simultaneously. Students in this study made efforts to decode the text; however, they did not always understand what they read. They were able to describe that good readers read with fluency. They defined fluency as synonymous with speed of reading, but accuracy and expression were not mentioned as traits of good reading.

Prosody, an indicator of fluency, is the music of the language and is associated with expression (Hudson, Mercer, & Lane, 2000). Prosody includes pitch or intonation, stress patterns, and duration (Dowhower, 1991; Schreiber, 1980, 1991). It conveys the message of the text that is actively constructed as the words are being pronounced (Torgeson & Hudson, 2006). Expressive reading happens when a degree of automaticity is established (Rasinski, 2004). In a recent presentation, Kuhn (2007) explained that both automaticity and prosody were important factors for fluency. It is generally agreed that rate and accuracy contribute to fluency, but prosody becomes another measure in the reader's understanding of the meaning of a passage. If students can read text using appropriate expression, it would indicate that students have a measure of comprehension. For the three boys and one of the two girls, Eva, the language held no music. As a whole, these students did not use any expression when reading aloud, and Victor and Roy even chose not to stop at punctuation that would have guided their expression. Ironically, the

student who had a low comprehension score on the comprehension check and was the only student marked below level in reading in this sample, Ivy, read with the most expression. This ability is counter to the idea that one must have comprehension to read with expression. It may be that Ivy was using the punctuation marks rather than the text to signal the pitch of her voice.

Clearly, automaticity had not been firmly established as the students in each reading session were unable to consistently decode more difficult words accurately and with speed. When reading, they generally read in a monotone, supporting the fact that they were not making sense of nor fully understanding what they read. Most obvious, however, were their statements that they did not understand what they had read due to the difficulty of the words. While students had the means to decode words through the strategy taught in the phonics intervention program, they did not have the means to understand the words in context nor to determine if the word they pronounced was actually correct.

Metacognition: thinking about thinking.

Cognition and metacognition are linked. Cognition refers to the cognitive processes an individual uses to gain knowledge and information. Metacognition is the ability to reflect upon and regulate the application of cognitive processes (Peeverly, Brobst, & Morris, 2002). This study identified several metacognitive strategies that students demonstrated when reading grade level social studies text. Students were able to summarize, paraphrase, or make inferences with differing degrees of accuracy. They were able to discuss strategies that would enhance their thinking, such as using text features like photos and glossaries, but most of the students did not apply these strategies

in the oral reading setting. Students held the notion that good readers read fast, and so they did not choose to stop and think about their understanding of the text, or if it were lacking, what they might have to do to gain understanding. If students were monitoring their comprehension, they would have slowed their reading pace, gone back to a section to reread it, looked at tables, maps, photos, and subtitles that were readily available, or asked themselves questions about what they had read. These practices were neither evident nor consistently expressed. Students were focused on speed of reading and decoding, which they were taught to do by breaking words into parts. They were unable to give sufficient attention to comprehending what they had read. Although students had exposure to comprehension strategies through the phonics program and in the reading curriculum of reading class, students exhibited the ability to comprehend through summarizing, inferring, paraphrasing, and questioning, but they could not elaborate on meaning construction when they were cued to stop and think about the text. Strategy instruction does not ensure that students will continue to use the strategy when no longer required to do so in reading situations outside of class (Kramer & Engle, 1981). All of the students expressed awareness that comprehension of this grade level text was difficult due to the words, but they generally were unable to comment on meaning construction. They were fixated on how they read (break the word apart, sound it out, put it back together) as opposed to what they read.

Self-Efficacy: I think I can.

All of the students indicated that they are better readers for having participated in the phonics intervention program. They not only thought of themselves as better readers, but, as expressed in their comments during the interview, they noticed that other students

now considered them to be smarter, even asking for their help in classes. Students suggested that they were better readers because they were more fluent readers for having completed the phonics intervention program. Self-efficacy was promoted through the use of easy books that enabled the students to apply the decoding strategy of breaking the word apart, sounding it out, and putting it back together again with facility. As the experience of reading became more pleasurable, the students grew in confidence in their ability to read. A result of participating in this phonics intervention program was that they could read selected text, albeit below grade level, with ease. Students who had previously characterized themselves as poor readers now saw themselves as good readers, a label that had escaped them for much of their academic careers.

The fact that students are participating in a program that promotes automaticity gives the students a more confident attitude that they are able to read challenging text. And if they think they can read it, they do. They were willing to make the effort to decode; however, my study indicates that they were not going the next step beyond decoding; that is, to monitor comprehension. Although students had a year of exposure to the sixth grade reading curriculum that included explicit strategy instruction, they focused on decoding strategies, not comprehension strategies.

Conclusions

The phonics intervention program experienced by the five students in this study indicates that when struggling readers are engaged in a systematic and sequential phonics intervention program, they gain a sense of control over the pronunciation of words. This sense of control may contribute to increased self-efficacy (Schunk, 1989). The acquired power over words leads to expending effort to read difficult text. It was my intention to

learn about the comprehension strategies that students who had experienced a phonics intervention program used when reading informational text. I learned from this study that students had a firm understanding of decoding strategies, but remained predominantly at the level of the word and did not move to understanding the larger concepts in the text.

Some explanation about why these five students responded to the text in the way they did could be that they struggle with reading. This idea can be illustrated by reviewing the results of the pilot study (see Appendix J) conducted with advanced level fluent readers who were very articulate about the metacognitive strategies that they used. Effective readers could easily explain the comprehension strategy and why they applied it. The students of this current study of students who participated in a phonics intervention program to improve automaticity appeared to be more prepared to articulate the phonics decoding strategy that they applied to the text. Their responses to the reading of the social studies text reflected the focus of the year-long intervention program they had completed. Their responses would be consistent with Wilde (2000) who suggests that phonics instruction is limited because it cannot guarantee that students pronounce a word right, only that they will come close. The intensive phonics training allowed the students to sound out words and to be cognizant of word configurations. While these strategies may help a reader identify some sight words, they do not provide them with the sophistication to read complex social studies texts.

Participation in the phonics intervention program enabled the students to become better readers in their own estimation because their reading rate increased when they were given easy text to read, but they, in reality, did not become efficient readers when asked to read social studies text on their own grade level. The use of easy books in the

phonics program to build successful reading experiences is a common practice. The students continued to have difficulty in using phonics (letter-sound relationship) with context to identify new words. It became evident that fluency is a major factor in comprehension of informational text, and while the students agreed that speed was an indicator of a good reader, they failed to mention awareness of the other components of fluency, such as the ability to read with prosody (expression).

Generally, an abundance of multisyllabic words or cognitive load (Hiebert, (2006) that could not be read automatically caused the students to read many key words incorrectly, which impeded comprehension. Their reading rates were not commensurate with their grade level of seventh grade and more closely matched the rates of first grade students (see Table 12). Students in this study were not yet fully automatic phonetic processors since they were unable to maintain a higher reading rate by applying the learned phonics strategy. They gave up on the use of the decoding strategy taught to them when they realized that it was taking too long and too much effort to decode the word (Paris & Cross, 1983). They then used a whole word technique of reading the word by using a similar sounding or looking word. The inaccuracy of this method together with time spent decoding detracted from the students' ability to comprehend the text (LaBerge & Samuels, 1974). With the students in this sample, it was their speed of reading coupled with the inaccuracy of the word that was read and the lack of application of comprehension monitoring strategies that contributed to loss of understanding.

In answer to my first subordinate question concerning the comprehension strategies used when reading informational social studies text, I found that students applied strategies in an effort to understand the text. All of the students were able to

comprehend what was immediately read in the text by demonstrating understanding through summation and paraphrasing. Several students moved to critical reading skills requiring a higher engagement with the text when they were able to infer, interpret, predict, and question.

I wanted to know how students describe the comprehension monitoring strategies that they applied. It appeared that students in this study did not demonstrate strong metacognitive skills where they could articulate their thinking as it related to understanding the text. They were mostly able to identify that difficult words hindered their comprehension.

Students' responses on the Reading Behaviors Survey indicated that they knew about comprehension monitoring strategies because they stated that they used context clues, text structure, prediction, and "fix-up" strategies (such as rereading) when engaging with text. The self-report by way of the survey reflected metacognitive awareness, but each student exhibited varying degrees of awareness. This variance would be expected since the constructivist framework of coming to know allows for each person to find his or her own understanding in a personal way.

One "fix-up" strategy is rereading text when readers realize that comprehension has been lost. Students in this study reread the single word to gain understanding of the word. They did not reread entire sentences or paragraphs to better understand units of thought.

My last subordinate question referred to students' attitudes toward reading and self after intensive phonics instruction. In every case, on surveys, in interviews, and in written form, students clearly identified themselves as better readers and more successful

as students due to their participation in the structured and sequential phonics intervention program in sixth grade.

Recommendations

The results of the study clearly illustrated the need for a balance of decoding and comprehension strategies in an intervention program to prepare students for the challenge of reading informational text such as the passage in this social studies textbook. The findings of this study suggest several research and instructional implications.

The recommendations reflect the observations.

Instructional Implications

1. Concept and vocabulary development are extremely important for readers who experience difficulties reading complex social studies texts. Students will require opportunities to practice reading previously unknown words in connected text, such as the textbook used in this study (Meyer & Felton, 1999) and in isolation, such as word lists (Levy, Abello, & Lysynchuk, 1997). Practice readings and repeated readings may increase students' ability to decode previously unknown words. The results of the study would support the practice of teachers spending time introducing and discussing difficult words and concepts before students attempt to read the text independently.

2. The findings of this study underscore the need for instructional focus on explicit strategy instruction and comprehension monitoring when reading informational text, especially social studies text that reflects historical perspective. The social studies textbook used in this study was considered an example of informational text under the state's Voluntary State Curriculum, implying that the information contained in it was based on fact; however, social studies textbooks, including this one, often contain

embedded items and author perspectives that are open to complex interpretation. Many students may require coaching and modeling from teachers in order to develop the critical reading skills needed to construct meaning from historical text (Afflerbach & VanSledright, 2001). Strategy instruction actively teaches readers to engage in strategies including predicting, self-questioning, summarizing, and checking understanding. Such instruction leads to long-term use of these strategies and may increase their use (Pressley & Afflerbach, 1995). The teaching of comprehension monitoring strategies to students often produces positive results in the areas of improved achievement, attitudes, and strategic awareness; however, teaching the value of a strategy is particularly important to poor readers who would otherwise not understand the usefulness of a strategy (Schunk & Rice, 1992). Teachers might be encouraged to use think alouds where the teacher reads and talks to students by sharing what he or she is thinking while reading, thus making the invisible process of reading visible (Robertson, 1995).

3. Prior knowledge as a foundation for comprehending informational text was underscored by Roy's response about the text, "But I understood it because I knew most of the countries and the history about them so it was easier for me to understand about Latin America." Tapping prior knowledge and building a background of knowledge where it does not exist in preparation for reading informational text appears to be of value in promoting comprehension.

4. Reading rate alone does not define fluency. Reading at a slower rate is acceptable and indicated when the subject of the text, such as Latin America, is unfamiliar. Teachers should encourage students to slow their reading pace in order to have time to self-monitor and self-correct and focus attention on comprehension.

Research Implications

This research study has provided four areas for further investigation: (a) prosody as an aspect of fluency and its relationship to comprehension, (b) comprehension monitoring in metacognitive development, (c) the transfer of strategies that support automaticity from phonics programs to difficult text, and (d) persistence as a reflection of self-efficacy.

1. Reading fluency is characterized by appropriate accuracy and rate along with good and meaningful phrasing and expression (Rasinski, 2005). Reading with expression, known as prosody, is considered to exemplify good comprehension (Kuhn, 2005). Fluency and prosody are considered to be central elements to reading comprehension. Four of the five students in this study read the text aloud in monotone. Two of the students chose not to stop at punctuation marks in what they admitted was an effort to get through the reading quickly. All of these students experienced difficulty understanding the text. Only one student read with some expression, and yet she exhibited low comprehension of the passage. In this one case study, prosody did not ensure comprehension of the text. More research is indicated on the relationship of prosody to comprehension, especially in older students.

2. It is important for readers to monitor comprehension in order to recognize when comprehension has failed. It is even more important to know what to do about it. This facet of metacognition was particularly evident when the students in this study encountered difficult social studies vocabulary and were at a loss to gain meaning from what they read. Further investigation is suggested to learn what readers do when comprehension breaks down.

3. Students in this study indicated in interviews and on a Likert scale that they perceived themselves to be better readers as a result of participating in a phonics intervention program. Their sense of control over the reading situation increased with the knowledge of phonics skills taught in the phonics program. Self-efficacy is supported by this sense of competency that influences expending effort and duration of perseverance (Pajares, 1995). The improved attitude of these students towards themselves as readers contributed to their persistence in reading grade level social studies text that proved to be difficult for them to decode and comprehend. Further research is needed to examine the connection between self-efficacy and the reading of grade level social studies text and other informational text that contain challenging vocabulary and concepts. How does self-efficacy influence comprehension monitoring strategies?

4. Automaticity in reading is the rapid recognition of words. The students in this study considered themselves to be good readers because they could apply with ease the learned strategy of breaking words apart, sounding them out, and putting the parts together to decode the unfamiliar word. As part of the program, students practiced this strategy on easy text that promoted automaticity and supported their belief that they could read with speed and accuracy. In this study, when students encountered grade level social studies text, they found that the application of the learned decoding strategy slowed their reading rate when they encountered multisyllabic words. A student expressed that he did not know if he had pronounced the unfamiliar words correctly. The students abandoned the learned strategy and chose to call the difficult word by a similar looking word. More research is needed to examine the transfer of strategies learned in phonics intervention programs to more difficult reading tasks.

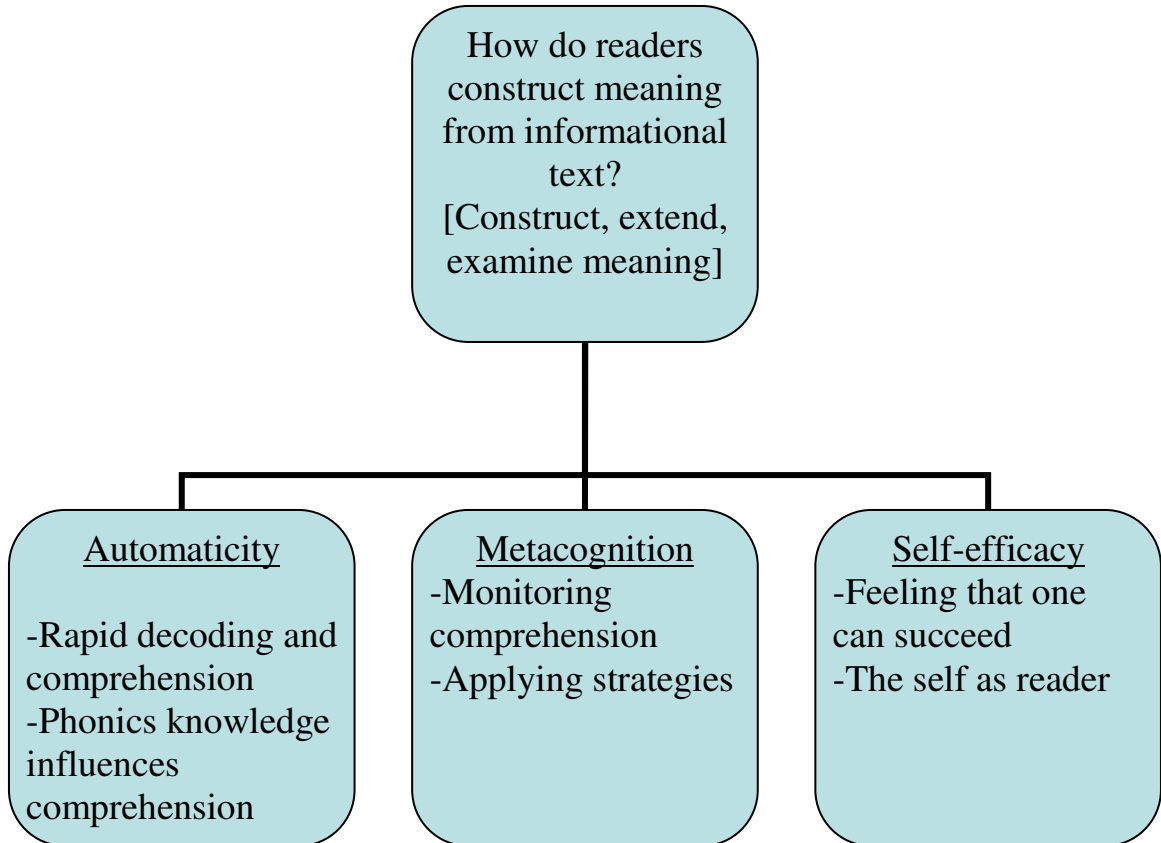
Summary

Participation in a structured and sequential phonics intervention program is foundational for middle school struggling readers to acquire phonics knowledge and word attack skills in order to build automaticity. The phonics program is just the beginning of the journey to becoming a grade level reader. As the students in my study demonstrated, an intensive phonics program increased their self-confidence as readers and allowed them to use decoding strategies more effectively. Speed of reading did not guarantee comprehension. Their reading behaviors indicated that it is still important to focus on improving their reading enabling capabilities such as word recognition, word attack, fluency, attitude, and interest and related comprehension monitoring skills that are global and subject-specific.

Appendix A

Theoretical Concept Map for Study

Constructing Meaning from Informational Text



Appendix B

Research Timeline

June 2006	<ul style="list-style-type: none">*Gained permission of the middle school principal to conduct the study*Gained agreement of the reading specialist in the school to act as study informant-includes access to the Student Reading Portfolios that are kept by the reading teachers*Reading specialist informant identified 5 seventh grade students of differing race, gender, ability (IEP) who have scored Basic on the Grade 5 State School Assessment, earned a stanine of 1, 2, 3, or 4 on the Degrees of Reading Power test in grade 6, and who have completed an intensive phonics Program*Learned results of grade 6 State School Assessment for sample students
September 2006	Parent meeting held to explain the research/ Parental and student permission obtained
November 2006 - End of first quarter	Student participants completed the <ul style="list-style-type: none">• Reading Behaviors Survey• Reading Interest Survey
Sept/Oct/Nov/Dec 2006	<ul style="list-style-type: none">*Met with students who will participate in the study to explain the study*Schedule was set up for students to<ul style="list-style-type: none">• Take an Informal Reading Inventory Graded Word List-Stieglitz Informal Reading Inventory• Write a brief paragraph explaining how s/he sees himself/herself as a reader• Indicate prior knowledge of topic• Read aloud from a grade level social studies selection and• Think aloud as the researcher makes notes in writing and records the session on a tape recorder• Take a multiple choice comprehension check based on the text read• Answer questions as part of a post-reading interview that was audio-taped• Participate in member check to confirm/refute/clarify responses• Students completed the Reading Interest Survey and Reading Behaviors Survey as part of their regular reading program for the Student Reading Portfolio.

Appendix C

Reading Behaviors Survey

Name: _____ Date: _____

Directions: Read each of the items below carefully. Rate yourself on each item by circling: ALWAYS SOMETIMES NEVER NOT SURE

Before I read,

1. I think about what I already know about the topic.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

2. I make sure I understand my purpose for reading.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

3. I decide which reading strategies would be appropriate to use.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

.....
While I read,

4. I am able to focus and maintain my attention on the reading task.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

While I read,

5. I know when I don't understand something.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

6. I make predictions on what may happen next.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

7. I use "Fix-Up" strategies when I don't understand something.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

8. I use "Context Clues" to help me understand new words.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

9. I use "Text Structure" to help me understand.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

10. I use "Picturing" to help me understand.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

After I Read,

11. I think about what I just read.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

12. I am able to summarize the major ideas.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

13. I often read additional material from outside sources on the same topic.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____

14. I know that my reading success is the direct result of my efforts.

ALWAYS SOMETIMES NEVER NOT SURE

Comments: _____



Additional information you would like to share about yourself as a reader:

Part of the *Student Reading Portfolio, 2002*, of a Mid-Atlantic Public School System

Appendix D

Reading Interest Survey

NAME _____ DATE _____

1. If you had to guess...

How many books would you say you owned? _____

How many books would you say there are in your house? _____

How many novels would you say you've read in the last 12 months? _____

2. Do the people in your family enjoy reading? _____

3. What does someone have to do in order to be a good reader? _____

4. How much time do you usually spend reading in a week? _____

5. Do you ever read novels at home for pleasure? If so, how often do you read at home for pleasure?

6. What kinds of books do you like to read? (e.g., biographies, romance, sports, etc.)

7. Who are your favorite authors? (List as many as would like.)

8. How do you choose a book to read?

9. Do you consider yourself to be a good reader? Why?

10. Name one book that you have read for English or Reading classes that you have liked, and tell why you liked it.

11. Name one book that you have read for English or Reading classes that you did NOT like, and tell why you didn't like it.

12. In general, how do you feel about reading? _____

13. In an average week, how many hours do you spend watching TV?

14. What are your favorite shows?

Perhaps we can select books that interest you in the same way. Part of the *Student Reading Portfolio, 2002*, and *The Middle School Reading Curriculum, 1998*, of a Mid-Atlantic Public School System

Appendix E

Name _____ Date _____

Comprehension Check World Cultures: A Global Mosaic

Directions: Circle your choice.

1. The main idea of this passage is:

- a. American investments in Latin America benefited the Latin American people.
- b. The US became involved in Latin America for economic reasons.
- c. US involvement in Latin American affairs was appreciated by Latin Americans.
- d. The Panama Canal was built to be an engineering wonder of the world.

2. The poet, Pablo Neruda, wrote a poem about Panama. He wrote:

...two oceans pushed forward to meet you...

And what happened? Little sister, they cut

Your figure as if it were cheese and then ate and left you like a gnawed olive pit.

When the poet writes, "...and then ate and left you..." to what country is he referring?

- a. Great Britain
- b. Peru
- c. Panama
- d. United States

3. The feelings of the Latin American people toward the US changed over the years. What word describes how Latin Americans came to think about the United States?

- a. a bear
- b. a pirate
- c. a giant
- d. a thief

4. In the early 1900s, the US decided to seek better relations with Latin America. The main reason for this change in policy was:

- a. The beginning of the Great Depression
- b. A declaration by President Franklin Roosevelt
- c. Economic pressure by Latin American countries
- d. American Marines who occupied some Latin American countries.

Appendix F

Questions for Semi-Structured Interview

Sample of Questions that will be asked of seventh grade students following the completion of the think-aloud session

1. Was the chapter that you read easy or difficult for you to read?
2. What thought process(es) did you use to understand this chapter?
3. Why did you choose this manner of thinking about the text?
4. Do you consider this process easy or difficult?
5. Do you feel that using this (these) process(es) helped you to understand the chapter?
6. How well do you think you understand this chapter?
7. If you read the chapter a second time, would you do anything differently?
8. Have you used this process for understanding content text before?
9. How often would you say you have used it?

*Since this interview will be semi-structured, it is anticipated that I will deviate from these questions depending on the responses of the students.

Appendix G

Member Check Results

Name	Words	SelfCorrect	Omiss.	Monitor	Features	Reader	Student	Think	Recall	Self-Ef.
Ivy	Skips words	Was able to self correct	No omissions	Recognizes that comp. is worse when words are skipped	Uses features when told to do so	Considered herself a good reader	Says she is a good student-gets As and Bs	Does not stop and think when reading	Knew she read about Latin America	Feels better about herself as a person and a reader
Victor	Sounded out unfamiliar words	Context helped him to know if he mispronounced a word	Did not omit words; omitted punctuation marks to get through reading	Says he stops and thinks after reading; reads fast to get to the end	Knows about text features but chose not to use them	Says he is a good reader-likes to read and reads fluently	Says he is a good student sometimes- does work, behaves, does not talk back, gets good grades	Did not stop at periods and commas	Recalled some details- wars, Great Depression & Latin America	Reads faster and does not slow down
Eva	Says she misreads words and then does not understand what she reads; knowing words in advance would help	Corrected a word that did not sound right	No omissions	Thinks she is getting better about understanding what she reads	Was taught to use text features, but chooses not to use them	Does not think she is a good reader because she does not always understand the words, esp., big words	Says she is a good student and gets good grades	Does not stop and think when reading	Read about Europe in the 1800s	Thinks better of herself, and people think she is a better reader
Roy	Knew that he misread	Knew he mispro-	Knew he omitted	Never thought to	Used photos;	Says he is a good	Says he is a good	Does not stop and	Recalled that he	Reading better now;

	words	nounced a word; skips words and then returns to them	words; was rushing to complete the reading because he gets nervous when reading aloud	stop and think while reading	said photos helped to clarify text	reader; one who makes mistakes and corrects them; tries to help himself out	student; follows rules, studies and gets good grades	think about what was read	read about Latin America, Texas was won from Mexico, and there were wars	learned syllabication; friends ask for his help in reading, and this makes him feel good
Thomas	Skips big words, then returns to sound them out; learned to sound out words in phonics intervention program	Knew when a word did not fit a sentence; used context clues	Omitted endings of words; Said he reads fast	Says he knows what he is reading even though he may not know all the words	Does not use text features when he reads	Says he is a good reader; good readers read good	Says he is not a good student; good students turn in all work and get good grades-he does not fit this description	Did not indicate that he thinks about what he has read	Recalled the words Panama Canal	Says he was a bad reader before the phonics program; now he knows how to sound out words

Appendix H

Reading Behaviors Survey Results

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Roy 12/10/06	Some	Some	Never	Some	Some	Always	Always	Some	Some	Always	Some	Always	Always	Some
Thomas 12/19/06	Always	Some	Some	Some	Some	Never	Some	Some	Some	Always	Some	Not sure	Some	Some
Ivy	Some	Always	Some	Some	Always	Always	Always	Some	Some	Always	Always	Always	Some	Always
Victor 12/1/06	Some	Not sure	Never	Not sure	Always	Some	Never	Never	Never	Never	Not Sure	Never	Some	Not sure
Eva 12/19/06	Some	Always	Some	Some	Some	Sometimes- When the book is good	Not sure	Some	Not Sure	Not Sure	Some	Always	Some	Some

Appendix I

Reading Interest Survey Results

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Roy 12/10/06	Own:26-30 In house:26-30 Read: 6	No	Know how to pronounce words	20 min.	Not really	Sports, horror, romance	Lemony Snickett	Look at cover or read the back	Yes-I learned how to read better	Number the Stars	Don't Know	All right if you read a book you like-	More than 40 hours	Football and more
Thomas 12/19/06	Own: 20 In house: 100 Read: 4	Mom loves to read	Practice a lot	2 hrs	Yes, once/mo.	Action	None	At random	No Answer	Holes	Number the Stars	Better than last year	100 hours	Rugrats Sponge Bob, Square Pants
Ivy 12/5/06	Own: 16 In house: 50 Read: 7	They love it	Stay on task	2 days	Reads for pleasure w/family	Fiction	Judy Blume	Look at title and cover	Yes, I am confident	Judy Blume book for project	June-it was boring	Good -It is fun	2 hours	Ambush; Makeover
Victor 12/1/06	Own: 300 In house: 300 Read:13	Yes	No answer	40 min.	Not a lot	Sports	Lemony Snickett J.K. Rowling	Read the back and skim the book	OK reader -not a fluent reader	Oliver Twist	The Littles	I feel OK with reading	3-6 hours	Don't have any

Eva 12/19/06	Own:35 In house: 20 Read:50	Yes, some- times	Practice	30 min.	Yes, each day	Any	Don't know; have a lot	Alone	No	The Necklace -it tells a good lesson	None	It's OK some times	2 hrs.	Anything and mystery
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Appendix J

Pilot Study

Abstract

This qualitative study describes and analyzes the reading strategies used by sixth grade students to comprehend informational text. The research design is multiple case study using participant observation of six students. Participants were selected with the assistance of the reading teacher. Students selected scored Advanced on the reading portion of the State School Assessment. This score indicates that students are above level in reading ability. Students were also selected for their willingness and ability to express themselves verbally. The teacher was selected because of her years of experience in teaching middle school reading. The theoretical framework for the study is cognitive theory, schema theory, and self-efficacy theory. Data was collected through interview, survey, comprehension check, observation, and written summary of self as reader.

Introduction

The Problem

Sixth grade students often have difficulty comprehending informational text even though their elementary and middle school reading programs may incorporate explicit reading strategy instruction. I wanted to find out what reading strategies were used by good readers when they read a typical content textbook. Determining the salient strategies employed by these sixth grade students would provide valuable information for reading and language arts teachers as well as content teachers for their instruction.

Method

I used participant observation as the approach to inquiry and data gathering for this multiple case study. Data collection included a reading interest survey and knowledge of strategies survey, interview, observation, think-aloud, student writing and a comprehension check.

There were six sixth-grade students in the study: Alma, Eve, and Helen (Caucasian females), Harry (Asian male), Neal (African American male), and Larry (Caucasian male). Students were asked to write about how they saw themselves as readers, and then each read a selection from a social studies textbook. They were told to think aloud as they read a selection, noting anything that helped them to understand the text. In advance of students reading, I briefly modeled a think-aloud of two paragraphs from a selection in the same textbook that the students were using for all of the students except Harry. I omitted the modeling of the think-aloud for this one student because I wanted to find out if the lack of a model made a difference in the responses during the think-aloud.

All of the students read the same selection on acid rain except Helen. She was given a selection on the Russian Railroad. I provided a different selection to this one student because I wanted to learn if a different selection might cause a variance in strategy use. The think-aloud was audio-recorded, and I also took notes. Students were then given a five question multiple choice comprehension check. Following the comprehension check, students were interviewed, and the interview was audio-recorded.

I reviewed and noted the results of two items that are provided by the county as mandatory components of the Student Reading Portfolio. They are the Reading Behaviors Survey (see Appendix C) and the Reading Interest Survey (see Appendix D).

I observed the teacher in this study two times to see what she taught in the way of strategy instruction, and how she taught it. After each observation, I interviewed her to record her thoughts on the lesson.

The think alouds and interviews were transcribed and coded for emerging patterns. Member check was used when it was necessary to clarify what a student meant by a statement or to clarify a statement. For example, one student indicated that he would use a glossary if he came to an unknown word. We discussed the kinds of words that are entered in a textbook's glossary. The student mentioned one word that I did not think would be there. We turned to the glossary, and the student was correct. The word was in the glossary.

Site

The study took place from October to December in a middle school located in an East Coast mid-Atlantic suburban area using grade six students. There are no Free and Reduced Meals (FARMs) students in grade six at this school. The measure of success in reading for schools in this state is the outcome of the results of the State School Assessment. The results for reading indicate that of the sixth grade students in this school, 75.1% are Advanced Readers, 22.7% are Proficient readers, and 2.2% are Basic Readers. Grade six had more Advanced Readers than either of the other two grades. When the data is disaggregated by race and gender, the following patterns resulted:

**2004 State School Assessment Results for Race/Ethnicity and Gender:
Grade 6-Reading Percent***

Race	Advanced	Proficient	Basic
Asian M.	68.8	31.3	0.0
Asian F.	84.2	10.5	5.3
Afr. Am. M.	23.1	76.9	0.0
Afr. Am. F.	100.0	0.0	0.0
White M.	82.3	13.9	3.8
White F.	76.6	22.1	1.3

*Web site: mdk12.org

There were fewer than five Hispanic or American Indian students; therefore, no data was reported for these groups.

Access and Sample Selection

I selected the middle school in this suburban community because I knew from its testing results that it would provide a wide selection of sixth grade students for the sample who met criteria of Advanced level on the State School Assessment and an inclination for verbal expression. I was acquainted with the teacher, and I knew that she had been a middle school reading teacher for several years, was tenured, and taught above level sixth-grade reading students. I believed that since we were acquainted and she was tenured, she would feel comfortable working with me on this study. I gained access to the students first with permission of the school system, then with the permission of the school's principal followed by the agreement of the teacher to participate. The teacher selected the student participants based on reading ability and willingness to express themselves orally. I had also asked that the students represent different gender and race. The sample of six students was composed of 3 White females, a White male, an African American male, and an Asian male. All of the students scored Advanced on the reading portion of the grade 5 State School Assessment.

Parent consent and student assent were obtained, and an evening parent meeting was held if further explanation of the study was needed. One parent of a White male student attended. His only concern was the amount of time I would spend with his student. I had indicated a maximum of 90 minutes in my initial letter. In reality, I used approximately 30 minutes with each student and was able to work the schedule so that the students never missed an academic subject. I met with the students in a conference room located in the guidance office. This setting was quiet, and allowed me to interview and audio-record the students.

Results

The purpose of the study was to determine salient strategies that students used to construct meaning. The selection in this Social Studies textbook on acid rain had a variety of text features including maps, photos and captions, highlighted and bold print, and large and small font size. The selection was two pages in length. The selection on the Russian Railroad was similar in features and length.

Results indicated that use of photos was most prevalent followed by use of captions. Students indicated that they used their prior knowledge and the new information in the text to help them make inferences. Students also thought of questions as they read the text. Students stopped at times to return to a picture, caption, or map to clarify their thinking or to answer a question that had come up previously as they read. The structure of the text was noted by the students that appeared to help them understand the information. Students were clearly able to state the text structure and were also able to identify the structure on the comprehension check.

The features most often accessed and strategies most often used that emerged from the data are presented in order of frequency:

- Pictures (included maps)
- Inferences
- Background knowledge
- Questions text
- Captions
- Text structure
- Glossary
- Summary by paraphrasing, Restating in own words, Visualizing, Change of reading pace
- Rereads
- Purpose, index, table of contents, bold print, context, subheadings, titles

Students were asked what they would do differently if they read the selection again. They indicated that they would reread or look at the captions and pictures first instead of during the reading as they had done this time.

Most of the students found the acid rain selection to be easy, but they noted that there were certain aspects that were difficult, primarily vocabulary words. One student indicated problems with the details. The student who read the selection about the Russian Railroad said that she had difficulty with the foreign words.

One student said that he had developed his own method of reading informational text. He used only the text features, especially the pictures, tables, and captions. He only read the text itself if there were specific questions that had to be answered.

The results of the comprehension check did not support the ease with which the students read the text of the four students in the study who read the selection on acid rain, two got 100, one earned an 80, and one earned a 60. Students took the comprehension check directly after reading the selection. They did not look back in the book for the answers.

The two students (Helen and Harry) of the six whose reading selection or preparation for reading differed, experienced similar results to the sample of four. Harry, who read the acid rain article without the modeling of a think-aloud, received a 60; Helen, who read the article on the Russian Railroad, received an 80.

Neal and Alma, who earned 100 on the comprehension check, had one thing in common regarding their approach to reading the text. They stopped throughout the reading to check their comprehension. For example, there is a statement in the text that reads: These acids make rain water much more acidic than normal. Alma stopped after reading that sentence and said, "So I guess that the wind is carrying all the exhaust and chemicals that are in the air from power plants and factories and vehicles that it's mixing with the clouds with moisture in the air." At another point, this same student stopped after reading and looked at the picture on the page to clarify what was read. This stopping and clarifying occurred numerous times throughout the text.

In a similar manner, Neal stopped and reiterated what was read in the text. The student read: Sulfur dioxide swirls around in the smokestacks of coal burning power plants. Nitrogen oxides escape in the exhaust of gasoline powered cars and trucks. He stopped and said, "So what people are doing is they're getting natural things and then turning them into stuff that actually kills nature...so they're taking things like fossils and

they're turning them into fuel and acid rain, and as they use them for their own things, they're killing the environment." Neal stopped at various times while reading to restate into his own words what was read in the text.

Both of these students indicated on their Reading Behaviors Survey that they always know when they don't understand, they always make predictions on what will happen next, and after reading, they are always able to summarize the major ideas. Eve, who scored an 80 on the comprehension check, indicated that she, too, always knows when comprehension has failed, but in the other areas of predictions and summarization, she indicated Sometimes for each. Larry did not complete his survey, so that there was no information available.

Each of the students was asked to write about themselves as readers prior to reading the text. They were very precise in what kinds of books they liked to read and could even share how they read. Neal reads outside of school and said that he likes to visualize in his head. Larry reads for pleasure and likes "how to" books. Eve reads all the time and prefers books where the characters "come alive" to her. Alma uses context clues, looks for the main idea, and knows the purposes for reading.

Harry and Helen, although not part of the core sample, also found reading to be enjoyable. Helen indicated that there are books everywhere in her home, and she prefers realistic fiction books. She likes to picture herself in the story. Harry thinks reading is fun, and he likes to read.

The students in the study were in the same reading class, and this situation facilitated the observation of the teacher on two occasions because they were part of the same lesson. I observed the teacher for two full class periods.

The first lesson centered on text structure of informational text. The teacher began the lesson by engaging in a conversation about the differences between novels and informational text. To illustrate the types of text structures, the teacher related several scenarios and asked students what the structure might be. For example, she talked about bumping a toe and what happened after she bumped her toe. A student guessed *cause and effect* and was correct. The teacher pointed out that cue words help the reader to identify the structure. She went on in this manner to illustrate chronology, description, and comparison/contrast. She spoke of these structures for informational text, but in her lesson, she broke students into groups and gave them narrative texts to read and determine the structure. The students were successful in this activity. Each group reported out, indicating cue words that led them to the identification of the structure.

During the second observation, the teacher used a science book to teach the parts and features of a textbook. She told the students to turn to any chapter in the book and tell what the chapter is about without actually reading the words of the body of the text. The teacher conducted a think-aloud using a chapter on air masses and fronts. She showed how she could use the text features of captions and pictures to understand the chapter without reading the book.

In both of the interviews with the teacher that followed the observations, she stated that she believed that the students would not transfer the information that she taught in her reading class to their other content classes.

Discussion

The six Advanced reading level students in this pilot study support the use of strategies to make meaning from text. Their use of pictures, captions, and making inferences as they read allowed them to construct meaning.

Harry, who did not have the benefit of a modeled think aloud prior to reading the text, did not think aloud even though he was told to do so and indicated that he knew how to think aloud. This student had seen the teacher think aloud during instruction in the classes that I observed. This situation causes me to conclude that in a future study that requires a think-aloud, I will have to provide a model so that I know that the students will follow my directions for the study.

It appears that content teachers who use textbooks in their instruction should stress the use of pictures, maps, tables, charts, and accompanying captions as they support reading of informational text. Teachers should encourage students to stop at points in the reading to monitor their understanding by thinking about what was just read or accessing pictures, maps, chapters, etc., that might help to clarify the ideas presented in the text. This finding is in keeping with that of Wingenbach (1982) who studied the comprehension processes of gifted students in grades 4, 5, 6, and 7. The study led Wingenbach to conclude that the Advanced reader is metacognitively aware of the reading process which allows this reader to assess the comprehension process, select from available strategies, use the strategy, evaluate the effectiveness, and select and implement other strategies.

The teacher in this study had expressed in the interview that she believed

that her students would not apply the strategies that she explicitly taught in her reading class to the reading of text in other subject areas. The teacher underestimated the students. Five of the six students in the study said that they apply strategies to other content text. Two of the students indicated that they had learned reading strategies in fifth grade, but the majority of these students seem to have learned the strategies in sixth grade. One of the students stated that textbooks were not used in fifth grade which apparently accounts for the lack of knowledge of strategy use until coming to sixth grade.

It was evident that students were, in fact, using the strategies that the reading teacher taught. I observed the teacher as she taught text structure. Students in the study were very aware of text structure and accurately identified the structure of the text that was read. All six students noted text structure in their think-aloud or interview.

The teacher had also conducted an explicit lesson on text features. One student said that he had developed a method of reading textbooks wherein he only used the text features and did not read the text. This student did not develop the method. During a lesson that I observed, the reading teacher had engaged the class in an exercise in which they were to use the text features to tell about an informational article in a science book without actually reading the text. The student had adopted this technique as his method of dealing with informational text.

Theoretical Framework

The results of the study supported the constructivist learning theory. Through the think-aloud process, it became evident that students were very aware of strategies and when to employ them. This strategy knowledge supports cognitive theory as students were able to monitor their own comprehension.

The frequent use of text structure and text features by the students supported schema theory. These Advanced reading students clearly had conceptualized patterns of informational text. They were also able to link prior knowledge of the subject, where it existed, to new information.

All of the students indicated that they saw themselves as good readers and to varying extents, they acknowledged that reading was important to their family members. Their positive views of reading and their confidence in their own reading abilities support the self-efficacy theory, that seeing themselves as good readers affords students the opportunity to be successful readers.

Implications for Future Studies

In a future study that uses this pilot study as its basis, I would like to include students who are Basic in reading on the State School Assessment. The inclusion of this Basic or Below grade-level group might make a difference in the way the students apply strategies. The results of the pilot study are limited to Advanced readers.

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