

University of Wisconsin-Whitewater  
Whitewater, Wisconsin  
Graduate School

Reading Comprehension and “Best Practices”

A Project Submitted in Partial Fulfillment  
of the Requirements for the  
Master of Science in Curriculum and Instruction

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December 16, 2011



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## Acknowledgements

With heartfelt thanks, I acknowledge the many people who helped me through the process of completing my thesis. First of all, I wish to thank Dr. Kathryn Brimmer, Assistant Professor of Reading Education, for all of her guidance, patience, and support. She not only gave me the advice and the resources I needed to complete this paper and project, but also invited me into her home many evenings and weekends. I could not have made it this far without her.

I would also like to thank Dr. Shane Staff who became my advisor towards the end of my graduate studies. Dr. Staff always showed great faith and confidence in me. I appreciate the times he spent sharing his ideas and wisdom with me.

My thesis was constantly evolving and took a new direction when our Reading Specialist, Bridget Perry, took on the role of advisor as my time became limited in my new role as second grade teacher at Royce Elementary in Beloit, Wisconsin. Her life was also filled with demands and commitments, but she always made time for me during school, after school, and even during the summer months. For that I am grateful!

The second grade students and staff at Royce Elementary School were also instrumental in my completing this project. Without their cooperation and support this project would not have been possible. I am grateful for their willingness to participate and to help me become a better teacher and colleague.

Finally, I would like to thank my family. I often spent precious time working on my thesis when I would have preferred to be spending that time with them. My husband and three boys listened to me complain when frustrated and were always very understanding, encouraging, and supportive throughout the months it took me to complete this project. To them, I am eternally grateful.

## Abstract

The purpose of this study is to investigate if and how the seven reading comprehension strategies identified as best practices are taught in the second grade Houghton Mifflin reading series (Cooper & Pikulski, 2008) used at Royce Elementary School in Beloit, Wisconsin. Through analysis of the reading curriculum, the researcher first set out to determine if the reading strategies, known as “best practices,” were in fact a part of the school district’s reading instruction. Once this was determined, the researcher calculated the frequency with which each strategy was taught throughout each of the six themes in the Houghton Mifflin teacher’s manual.

A second portion of the study explored if the amount of time given to a particular strategy was sufficient for students to master its use and be able to apply it independently. Two strategies were chosen: making predictions and questioning. Each strategy was taught for one week. A pretest was administered before teaching the strategy and a posttest was given afterwards to determine how proficient students were at applying the selected reading comprehension strategies independently.

The results of the pretest and posttest from Beth Critchley Charlton’s *Informal Assessment Strategies* (Charlton, 2005) revealed that the majority of students performed at a level *two* on both the “predicting” and “questioning” strategies. Of all the students assessed, 69% received a level *two* on the “predicting” pretest and 76% received a level *two* on the posttest. On the “questioning” pretest, 51% scored at a level *two* and 65% scored a level *two* on the posttest. Some gains were made in teaching the strategies of “predicting” and “questioning.”

## List of Tables

Table		Page
52	3.1 Cumulative Data of Across-the-Curriculum Assessment for Predicting	
	3.2 Cumulative Data of Across-the-Curriculum Assessment for Questioning	53
	4.1 Results for Making Predictions	58
	4.2 Results for Questioning	59

## Table of Contents

	Page
Acknowledgements	iii
Abstract	v
List of Tables	vii
Chapter I. Introduction to the Research	1
A. Statement of the Problem	
2	
B. Background	3
1. Research-Based Reading Instruction	7
2. Metacognition and Comprehension	8
3. Relating Fluency and Vocabulary to Comprehension	10
4. Teacher Preparation	12
C. Significance of the Study	15
Chapter II. Review of the Literature	17
A. Historical Overview of Reading Instruction	17
B. Theoretical Perspective	27
C. Reading Comprehension Instruction and “Best Practices”	31
Chapter III. Design and Methodology	44
A. Introduction	44
B. Research Questions	44
C. Design of the Study	44



D. Participants and Setting	46
E. Instrumentation	46
F. Intervention	48
G. Data Collection	48
H. Data Analysis	50
1. Houghton Mifflin Reading Program	50
2. Making Predictions and Questioning Strategies	51
I. Summary	53
Chapter IV. Results	55
A. Introduction and Overview	55
B. Research Questions	55
C. Presentation and Discussion of Results	55
D. Summary	60
Chapter V. Conclusions, Implication, Recommendations, and Limitations	62
A. Introduction and Overview	62
B. Conclusions	62
C. Implications for Teaching	66
D. Recommendations for Future Research	68
E. Limitations of the Study	69
F. Summary	70
References	72
Appendix A: Second Grade Houghton Mifflin Reading Curriculum- Comprehension Analysis	80



## Chapter One

### Introduction to the Research

The term “best practices” is a general term encompassing a variety of teaching techniques used by teachers to teach students to comprehend text with regard to reading. Because there is no one right way to teach children to read, teachers need to have a repertoire of strategies that they can utilize to provide students with the appropriate tools that students can use to be successful readers (Knowles, 2009). The purpose of this project is to conduct a curriculum analysis to determine if the identified best practices for reading comprehension instruction are indeed a part of one school district’s reading curriculum.

Learning to read is a complex process; however, once it is achieved, it can be an indication of literacy and a gateway to learning and knowledge (Ruddell, Ruddell, & Singer, 1994). Students in the upper elementary grades are moving from learning to read to reading to learn. Comprehension is defined as “the act of constructing meaning from text” (Texas Education Initiative, 2002, p. 10). Reading comprehension requires an interaction between the reader, the reading material, and the knowledge that the reader brings to the reading task. However, comprehension is often hindered when the reader lacks background knowledge or the strategies to activate this knowledge and integrate them with what is presented in the text.

Readers bring to the reading task a wide range of experiences and knowledge about a variety of topics. This background knowledge is the reader’s experiences with the world and with the text. Background knowledge is crucial for understanding higher-level concepts in the types of texts students encounter. “The extent of this knowledge and the ease with which readers activate it and apply it to topics directly affects how well students understand what they read” (Texas Reading Initiative, 2002, p. 10).

### *Statement of the Problem*

Readers use a variety of comprehension strategies to construct meaning *before, during,* and *after* reading. Comprehension strategies are “conscious plans under the control of a reader” (Texas Reading Initiative, 2002, p. 10). Skilled readers integrate information from text with their background knowledge and continually monitor their understanding and recall. They know the purpose of their reading, ask questions as they read, and are able to identify important information. Skilled readers also have strategies to use and apply when they do not understand the material (Texas Reading Initiative, 2002).

Based on research, strategy instruction is essential and must include ways of incorporating multiple strategies at one time. The goal of such instruction is so that students internalize reading strategies, and are able to use them independently and express their use verbally. Professional literature also states that readers must be able to integrate new information with what they already know. Several key strategies have been identified as being able to meet the needs of students and enhance their reading success. These include making connections, making inferences and predictions, question answering and question generation, visualizing, monitoring and clarifying, summarizing and synthesizing, and evaluating and determining importance. It is important for teachers to be aware, understand, and be able to teach their students multiple strategies in order to reach their goals as teachers as well as to meet the standards of the school district and the state (Dole, Duffy, Roehler, & Peterson, 1991; Harvey & Goudvis, 2000; Keene & Zimmerman, 1997; National Reading Panel, 2000). “Teachers must accept responsibility for helping students comprehend and learn from many sources of

information” (Hinson, 2000, p. 1). By providing teachers with the research on comprehension and giving them the information on what are considered “best practices,” teachers can take one more step in being responsible while becoming more knowledgeable and able to apply these strategies in their curriculum and instruction.

### *Background*

For much of the history concerning reading instruction, little time has been devoted to reading comprehension instruction. Instead teachers were assigning reading activities, making sure students were on task, assessing students in various forms, and providing corrective feedback (National Reading Panel, 2000). Reading was seen as a passive process in which the reader simply received information. More than thirty years ago, because of the work of Delores Durkin and other researchers, reading became understood as an active process in which there is an interaction between the reader and the text. Reading comprehension can, therefore, be defined as “the construction of the meaning of a written text through a reciprocal interchange of ideas between the reader and the message in a particular text” (National Reading Panel, 2000, p. 4-39). Not only is reading an active process, but it is also one with a purpose. Whether one reads to learn, to find out information, or simply for entertainment, the reader is required to use his or her knowledge of the world, language, and print to find the writer’s intended meaning (National Reading Panel, 2000).

Often, when students are asked to read from a text, they start at the beginning and continue to the end. They are able to read the words, but often they do not understand the meaning of what they read or remember the content (Pressley, 2002). It is important for proficient readers to identify the purpose for reading and to apply the information they have read.

To do this, they must comprehend the material. However, it is unlikely that students will simply pick up the ability to comprehend if not given the tools with which to build their reading skills.

Both researchers and educators have attempted to answer the question of whether or not behaviors that enhance comprehension can be taught. Research indicates that they can. Teaching students reading comprehension strategies is not only possible, but also necessary in order for students to improve their comprehension of the various texts they encounter (Duke & Pearson, 2002). Comprehension strategies are defined as “specific procedures that guide students to become aware of how they are comprehending as they attempt to read and write” (National Reading Panel, 2000, p. 4-40).

In 1978, Delores Durkin conducted a classic study on reading comprehension instruction that was published in *Reading Research Quarterly* (Durkin, 1978-1979). Durkin observed students in Grades 3 through 6 to determine the amount of time teachers were spending on teaching reading comprehension. After having previously observed first and second grade classrooms, with the assumption that comprehension instruction happened mainly in those grades, she found that almost no comprehension instruction took place in most classrooms (less than 1%), and the majority of attention on comprehension was on assessment through questioning. Her observations revealed much about teachers’ lack of comprehension instruction and led to more research studies designed to improve reading comprehension instruction. Many decades later, not much had changed, and researchers like Donna Emery (1991) and Michael Pressley (2000) also found that reading comprehension was more often assessed than being taught.

Research in the 1970s and early 1980s revealed that several comprehension strategies positively affect comprehension and memory of text. These included relating the text to what the reader already knows, the construction of mental images that relate to the text, the ability of the reader to generate questions as he or she reads, and summarizing the reading material. Reciprocal teaching was one technique designed by Palinscar and Brown (1984) that combined the strategies of predicting, questioning, clarifying, and summarizing to aid in reading comprehension (Pressley, 2002).

In 1985, *Becoming a Nation of Readers: The Report of the Commission on Reading* (Anderson, Hiebert, Scott, Wilkinson, 1985) was published as a means of summarizing the new information that was acquired from the research of the time. That information was used to determine the direction of reading instruction. New discoveries were made, but most surprising was the finding that old methods were indeed the most beneficial in teaching students reading comprehension skills. A major revelation from this study was that no one method or strategy, when applied correctly, instantly makes a child a reader. The Commission on Reading recommended several steps that should be taken in order for a reader to make real gains. One step was direct or explicit reading instruction. The Commission on Reading further recommended that reading comprehension strategies should be explicitly taught and that teachers should spend more time teaching them. This included using both narrative and expository texts for instruction.

In the late 1980s and early 1990s, Pressley and his colleagues studied three schools and found similarities in reading instruction in all of the schools. They found that both decoding and comprehension strategies were being taught, and that these strategies were being taught during

small group instruction, plus opportunities that provided them practice were given throughout the day. Students were taught interpretive strategies as well as how to coordinate their strategy use. This was labeled Transactional Strategies Instruction (Pressley, 2002). Transactional Strategies Instruction involves the teacher and student actively sharing their thinking. The teacher directly instructs students and scaffolds student learning. Instruction is guided by student reaction. Comprehension is aided because students are explicitly taught and guided through the use of reading comprehension strategies that can be used *before*, *during*, and *after* reading.

In the 1990s, teachers were encouraged to teach comprehension strategies in order for students to better understand their own reading processes. Donna Emery's research noted the conclusion made from Durkin's 1978-1979 study that "schools don't teach comprehension" (Durkin, 1981, p. 423), which prompted a growing concern for the lack of improvement in reading comprehension. This was especially true for students of diverse ethnic and language backgrounds. Prior to 1991, basal reading programs had been used in over 90% of elementary school classrooms. Afterwards, there was a switch to more literature-based instruction (Emery, 1991; Reutzel & Cooter, 2005). Some frameworks recommended that reading instruction use more explicit strategies to promote reading comprehension.

Comprehension instruction became a part of literature-based reading programs because of these recommendations. However, there was concern that there may be more emphasis placed on the literature itself rather than on comprehension instruction. Emery (1991) conducted a study of fourteen fourth through sixth grade classrooms that she identified as being strong examples of literature-based language arts programs. The purpose of her study was to investigate whether or not fourth through sixth grade classroom teachers spent a significant amount of time on teaching



students how to comprehend. Emery also set out to find how much time was devoted to the assigning of isolated comprehension tasks and assessing comprehension. At the conclusion of her study, Emery discovered that comprehension instruction was observed less than 3% of the time. From her research, she also discovered that teachers should be given additional help and guidance in order to provide adequate comprehension instruction.

Other studies and observations during this time found that there were a variety of approaches teachers used to teach reading, but none included the explicit strategy instruction (Pressley, 2002). Duke and Pearson (2002) pointed out that although there are a multitude of strategies for enhancing comprehension, teaching students how to use just one technique effectively would improve their comprehension. This was promising; however, it is important to consider that good readers draw upon multiple strategies throughout the reading process (Duke & Pearson, 2002).

### *Research-Based Reading Instruction*

Effective comprehension instruction should be “balanced” and include both explicit instruction in particular comprehension strategy use and opportunities to use that strategy for reading, writing, and discussing. By offering students a “supportive classroom context” (Duke & Pearson, 2002, p. 207), students will be able to master the strategies taught and be able to apply them in the countless and diverse reading experiences they encounter. This type of environment includes:

- A significant amount of time allotted for reading.
- Opportunities to read authentic texts for real purposes.
- Experience reading a variety of genres for growth in comprehension.

- A vocabulary-rich environment where vocabulary and concepts can be developed through word use and discussion of meaning.
- Practice in accurately and automatically decoding words.
- Opportunities to write texts for others to read and understand.
- The inclusion of a rich discussion of text.

Not only should comprehension instruction include a supportive classroom environment in which strategies are taught, but it should also connect and integrate reading, writing, and discussion. Duke and Pearson (2002) suggest a model of comprehension instruction consisting of five components:

1. An explicit description of the strategy and when and how it should be used.
2. Teacher and/or student modeling of the strategy in action.
3. Collaborative use of the strategy in action.
4. Guided practice using the strategy with gradual release of responsibility  
(Pearson & Gallagher, 1983).
5. Independent use of the strategy (pp. 208-209).

Duke and Pearson (2002) also point out the importance of choosing texts that best fit the teaching of particular strategies, motivating and engaging students through the process of learning them, monitoring students, and using the results to guide instruction.

Research has shown that certain strategies are particularly effective in improving students' comprehension. Duke and Pearson (2002) identify prediction/prior knowledge, the think-aloud technique, text structure, visual representations, summarization, and questions/questioning as individual strategies that are particularly effective. It is recommended that these

strategies be explained and modeled, and then used in shared, guided, and independent reading situations.

### *Metacognition and Comprehension*

More than 40 studies reviewed by Pressley and Afflerbach (1995) concede that particular strategies are especially beneficial in promoting understanding as students proceed through reading materials. These include strategies used *before*, *during*, and *after* reading. Because skilled readers are active readers, they understand the purpose of their reading and have a goal in mind. *Before* reading, skilled readers skim the text to find the structure and determine which parts are most significant in reaching their goal. They make predictions and select what parts need more careful consideration. They also activate their prior knowledge, revealing what their ideas are about the text.

Much takes place *during* the reading process. Readers are especially active while engaged in reading. They constantly relate the materials to their background knowledge, create images in their mind, and generate summaries from what they read. *During* reading, comprehension monitoring takes place, determining if the reader understood the text or if he or she needs to go back and review or reread. Skilled readers are constantly aware of what strategies they need to use to gain the understanding that they need to reach their goals. *After* reading, good readers reflect, summarize, and establish whether or not their predictions were correct and their goals realized. They may need to reread parts that seem especially important or to clarify the material. Readers also evaluate their progress, decide if they used appropriate strategies for the purpose of their reading, and modify the strategies used if necessary.

Pressley points out that skilled readers are active and use a variety of comprehension strategies as they process difficult text. Because it has been found that long-term instruction improves both understanding and memory of text, explicit instruction of comprehension strategies should begin to be taught in the lower elementary grades and progress through the upper grades. Comprehension is often assessed, but comprehension strategies are not taught (Pressley, 2002). Pressley also discusses the importance of metacognition and students' awareness of whether or not they are able to understand the text. Metacognition is "knowledge of thinking processes, both knowledge of the thinking occurring in the here and now and in the long term" (Pressley, 2002, p. 291).

#### *Relating Fluency and Vocabulary to Comprehension*

Research indicates the importance of instruction in fluency and vocabulary acquisition in reading comprehension. Fluency is defined as "freedom from word identification problems that might hinder comprehension" (Samuels, 2002, p. 167). The development of word recognition accuracy and reading fluency are required in order for readers to gain meaning from text. Beginning readers divide their attention between the decoding of each individual word and the comprehension of the whole text. As a result, the reading process is slowed down and a burden is placed on memory. Fluent readers are able to read without effort and are unaware of the reading process. They are able to focus on the meaning of the text rather than on the decoding of each word. Therefore, comprehension is enhanced when readers are fluent. Fluent readers may also be unable to prevent themselves from reading when they encounter text. They are able to identify words and comprehend text simultaneously. As Samuels (2002) points out, there is a link

between word identification and comprehension because in order for a reader to experience comprehension, he or she must be able to identify words quickly and automatically.

The importance of vocabulary, as it relates to comprehension, has been the topic of many studies for nearly a century, including those conducted by the National Society for Studies in Education Yearbook (NSSE) (1925), Davis (1942), and Nagy (1988). The NSSE Yearbook stated, “Growth in reading power means continuous enriching and enlarging of the reading vocabulary and increasing clarity of discrimination in appreciation of word values” (National Reading Panel, 2000, p. 4-15). Davis argued that word knowledge, or vocabulary, and reasoning in reading are two “skills” associated with comprehension because of the prominence of vocabulary in reading, and because it is so strongly relates to comprehension. Nagy concluded that “the proportion of difficult words in a text is the single most powerful predictor of text difficulty, and a reader’s general vocabulary knowledge is the single best predictor of how well that reader can understand text” (Nagy, 1988, p. 1).

The National Reading Panel (2000) believes that vocabulary deserves special attention. Vocabulary is more about individual words while comprehension is the understanding of whole phrases, sentences, and ideas. However, to understand the idea of the whole, the reader must process the individual words (National Reading Panel, 2000). Two types of vocabulary exist: *oral*, which is key to transitioning from the oral to the written, and *reading*, which is key for the skilled reader to be able to comprehend. According to the National Reading Panel (2000), there are five primary methods of teaching vocabulary:

Explicit Instruction – Giving students the definitions or attributes of words to be learned.

Implicit Instruction – Exposing students to the words or giving them opportunities to spend a significant amount of time reading.

Multimedia Methods – Providing students with graphic representations, hypertext, American Sign Language, or other media.

Capacity Methods – Allowing students to practice in order to increase retention through making reading automatic.

Association Methods – Encouraging students to make connections from what they already know about words and what they do not know (National Reading Panel, 2000, p. 4.3).

There is a definite relationship between fluency, vocabulary, and comprehension. In order for comprehension to take place, a reader must be fluent. This is because a great deal of mental capacity is used in order to figure out words causing the focus to be on decoding. If decoding is not automatic, the majority of the time is spent not only on decoding, but also on understanding that which was read. Comprehension is dependent on vocabulary, and if each word is not understood, the reader cannot comprehend the entire text.

### *Teacher Preparation*

Most of the research surrounding comprehension instruction focuses on the teacher developing students' fluency, vocabulary, and the teaching of strategies that will increase their reading skills. Teachers are not always prepared to teach these skills and strategies, but it is up to them to have the knowledge with which to teach the important reading comprehension strategies in reading comprehension, so students will be able to apply them independently. Teachers need to seek out what research-based comprehension strategies are and ask if their school district's

reading curriculum incorporates them along with sufficient time for them to be practiced and established.

The National Reading Panel included in its 2000 report that teacher preparation is currently the most promising topic of research in the area of comprehension instruction. If teachers are proficient in their understanding of comprehension strategies and in effective ways of teaching them, their students will become even more proficient in their understanding of the text and in their use of comprehension strategies (National Reading Panel, 2000).

One issue that teachers often face is the confusion between the terms “strategies” and “skills.” Strategies are “conscious and flexible plans that readers apply and adapt to particular tasks and texts” (Hinson, 2000, p. 10). The term skills, however, refers to the reader’s ability or proficiency in reading (Soukhanov, 1996). Another skill is how to acquire and practice various strategies in isolation and then relegate those same strategies to authentic situations. Teacher training is essential in overcoming any obstacles to strategy instruction and for establishing solid comprehension strategy instruction in primary, intermediate, and secondary classrooms (National Reading Panel, 2000; Williams, 2002).

Proficient reading not only involves the use of individual strategies, but is also a “constant, ongoing adaptation of many cognitive processes” (Williams, 2002, p. 244). The first known approach developed to help teachers teach comprehension strategies was explicit instruction. This approach was effective in aiding students to improve their reading skills. Teachers taught a strategy or a set of strategies by modeling the think-aloud technique and providing guided practice. This helped students become “competent, self-regulated readers” (National Reading Panel, 2000. p. 4-119). The Gradual Release of Responsibility Model

developed by David Pearson and Margaret Gallagher in 1983, illustrates the “progression in which students gradually assume responsibility for their learning” (Graves, Juel, & Graves, 2004, p. 60). This model includes:

1. A focus lesson where teachers model the cognitive process they engage in as active readers.
2. Guided instruction where the teacher helps students gain understanding by asking questions, providing prompts, and facilitating a discussion.
3. Collaborative learning where students are encouraged to problem solve, discuss, and confer with their peers.
4. Independent learning, at which time students are given the opportunity to practice the skill they were taught. This is perhaps the most important goal of the process.

Studies have been conducted suggesting, “good teacher preparation can result in the delivery of instruction that leads to improvements in students’ reading comprehension” (Williams, 2002, p. 245). Consensus as to which is the best approach is still under debate. There are two major approaches to comprehension strategy instruction, Direct Explanation (DE) and Transactional Strategy Instruction (TSI). Direct Explanation goes beyond direct instruction in that it provides students with a better understanding of the reasoning and mental processes of strategic reading. With this approach, individual strategies are not taught, but students are encouraged to view reading as a problem-solving task that necessitates the use of strategic thinking and learn to think strategically about solving reading comprehension problems (Williams, 2002, p. 246). Teachers who use Direct Explanation are trained specifically in how to teach students to problem solve as they go through the reading process.



Transactional Strategy Instruction is similar to Direct Explanation, but the role of the teacher goes beyond the teacher's ability to provide direct and explicit explanations to include the teacher facilitating discussions with students. Together the teacher and students (or students and groups of students) form interpretations of the materials, and then reactions are shared that could possibly affect the initial interpretation. Thus, a transaction takes place between the student, the teacher, and the text, and skills that are practiced in the group are internalized. Through this process, students learn the mental processes and cognitive strategies involved in comprehension (Williams, 2002). The most significant difference between these two approaches is the amount of collaboration between the teacher and the students. Direct Explanation is more teacher-driven and Transactional Strategy Instruction is more focused on the interactive exchange between the teacher and students.

In order for students to develop into active and met cognitive readers, teachers also need to be met cognitively sophisticated. Teachers must be aware that their students can learn comprehension strategies. They should know that their students must read often and frequently to develop fluency and an extensive vocabulary. Just as important is the understanding that explicit instruction is essential in a student's ability to develop decoding and comprehension strategies as well as modeling their use (Pressley, 2002).

Although the research in the area of reading comprehension strategy instruction has made gains, research in the newer area of teacher preparation needs to focus on ways in which to teach comprehension strategies in the classroom. Comprehension is a complex process as is the teaching of reading comprehension. Teacher educators now know that "intensive instruction of teachers can prepare them to teach reading comprehension strategically and that such teaching

can lead students to greater awareness of what it means to be a strategic reader and to the goal of improved comprehension” (Williams, 2002, p. 255).

Pressley states “comprehension instruction can be enhanced by long-term instruction that fosters development of the skills and knowledge articulated by very good readers as they read” (Pressley, 2000, p. 557). Thus, comprehension is increased when students are explicitly taught how to be active readers by using a variety of comprehension strategies and practices (Pressley, 2000). Pressley suggests strategies that can be used *before*, *during*, and *after* reading and states that effective strategies require direct explanation, teacher modeling, and guided practice.

### *Significance of the Study*

Not only does the literature discuss reading strategies and best practices, but classroom teachers are also talking about them. Because professionals often use the term “best practices,” my goal is to find out what research has to say about the strategies their work and those practices that have been proven to be effective. Through reading, I came across much overlapping information. The same strategies have appeared time and time again in different book, articles, and websites. It is important for there to be some agreement and consensus as to what works best for teaching reading comprehension skills, even though each situation and group of students may vary. Teachers are busy people, and their top priority is to teach students. My goal is to create a curriculum analysis that will inform the teacher what the identified reading comprehension strategies are, if they are included in the school district’s reading curriculum, and if they are effective as they are laid out in the curriculum.

The curriculum analysis will be a useful tool as lower elementary schoolteachers work to build their students' repertoire of reading comprehension strategies. A variety of reading comprehension strategies have been identified and examined by reading researchers. Reading comprehension instruction should focus on providing students with strategies that they can use *before, during, and after reading*. These strategies help students to build upon and activate their prior knowledge. The strategies also help readers to interpret text structures, self-monitor, and reflect on what they have read (Texas Reading Initiative, 2002). Students should also combine strategies for further understanding. This analysis serves as a point of reference that teachers can use to learn what the identified "best practices" for reading comprehension are, to see if the curriculum teaches those strategies, and determine if and what strategies need to be taught using supplemental material. It is important for educators to have access to research based on sound evidence for practices that work well to teach reading comprehension strategies, so that they can know what "best practices" are and, consequently, use them successfully in their classrooms.

## Chapter Two Review of the Literature

### *Historical Overview of Reading Instruction*

Learning to read is a complex process, but once it is achieved, it can be an indication of literacy and a gateway to learning and knowledge (Ruddell, Ruddell, & Singer, 1994). Arguably, the most important skill a child can learn is reading comprehension. From the time books were first published to the present day, the most important purpose of reading is to gain knowledge and understanding.

The methods used to teach children how to read have evolved and the reasons for using such methods have changed over the course of United States history. The Pilgrims arrived in 1620, but it took time for them to establish themselves and their educational practices. Massachusetts became the leader in shaping the policies of American schools (Smith, 2002). From the 1640s to the present day, reading instruction has been related to the current social, cultural, ethical, scientific, and/or religious beliefs.

Beginning in 17<sup>th</sup> century New England, the hornbook, a single sheet of paper attached to wood consisting of the alphabet, syllabary, invocation, and the Lord's Prayer, was the first reading experience of most children in colonial America. Hornbooks were also children's first introduction to Christianity and became more secular as they evolved into battledores in the mid-18<sup>th</sup> century. Battledores, made of cardboard, were sold alongside the more traditional hornbook (Monaghan & Barry, 1999). The term battledore refers to its shape, as it resembled the racket used for playing badminton. Expense was an important consideration of the time, so a less expensive form of publication to manufacture was the chapbook, a small pamphlet containing

popular literature. Chapbooks were written on a variety of subjects and were suitable for readers of all ages and levels of society (Ward, 2007).

Prior to 1776, the reading of the Bible was the central purpose of reading, and a sequence of instruction was followed in reading this sacred book. After the hornbook, children moved on to read the Primer, an elementary book for teaching children to read; the Psalter, a Biblical book of Psalms; the New Testament; and then the Bible as a whole. Reading at this time was meant to be oral (Monaghan & Barry, 1999). Illustrations were included along with the text to build interest and make learning to read more enjoyable (Ward, 2007).

At the beginning of American reading instruction, the Alphabet Method was the basis of teaching. Using this method, children identified letters by name and spelled nonsense syllables aloud. Then, they spelled out words and progressed to spelling words that contained up to eight syllables. This method was used exclusively, until approximately 1820, when whole word and phonics methods of instruction were also employed (Monaghan & Barry, 1999).

Primers were the basis of reading for colonial children and were thought to contain “the primary essentials for one’s spiritual existence” (Monaghan & Barry, 1999, p. 9). Primers were comprehensive books consisting of 70 or more pages that were imported from England to the United States as early as 1655. It was not until the late 1680s that a true American Primer was printed in the United States (Monaghan & Barry, 1999).

Sentence and story method readers began to appear and grow in popularity in American schools in the early 1900s. This was a result of a growing concern for an emphasis on understanding in beginning reading instruction (Monaghan & Barry, 1999). When teachers used the sentence method, they allowed their students to discover the story one sentence at a time,

using questions and illustrations. When using the story method, teachers completed the reading of a story and the students memorized it before the printed text was introduced (Monaghan & Barry, 1999).

The Progressive Education Movement in the late 19<sup>th</sup> and early 20<sup>th</sup> century influenced the popularity of the word method. The word method was very popular among progressives because of the freedom of choice it offered; there were no restrictions on vocabulary, as the reader tried to match the text to the sounds of the letters taught. Educators using progressive education methods believed that children's "work" was play and that child's interests should guide their learning (Monaghan & Barry, 1999). Among the leaders of the Progressive Education Movement in the United States was John Dewey (Smith, 2002).

During this same period, the Literature Movement developed. The Literature Movement of the early 1890s was a result of Charles W. Elliot's objection to the use of contemporary readers because of their lack of real literature. Elliot was the president of Harvard University and felt the readers of his time lacked "literary merit." His campaign to remove the current readers from schools significantly affected the content of textbooks (Monaghan & Barry, 1999). From 1880 to 1910, educators came to consider the "supreme function of reading instruction to be . . . developing appreciation for a permanent interest in literature" (Sears, n.d. b, p. 2). Until 1910, the terms "reading" and literature appreciation were synonymous.

Public education for the masses was widely accepted at the turn of the century, and it was considered a "necessary social investment" (As cited in Sears, n.d. a, p.2). Scientific research and the importance of quantification or the measurement of growth began to influence the types of reading series being published in the early 1900s. Educators followed either the sentence and

story method or the word method that introduced more vocabulary control in their reading instruction (Monaghan & Barry, 1999).

Late in the 19<sup>th</sup> century, there was a shift from oral reading to the silent reading of literature. This shift was due to evidence in research that indicated children's comprehension was better when reading silently compared to reading orally. Besides silent reading, there began to be a new emphasis on reading speed, reading disabilities, and other innovations related to reading (Smith, 2002).

Between the 1890s and 1920s, basal readers were influenced by both the Progressive Education Movement, which encouraged stories of children at home and at play called "new realism," and the scientific measurement movement, which promoted a "scientifically controlled vocabulary" (Monaghan & Barry, 1999). During the early part of the 20<sup>th</sup> century, the Progressive Education Movement gained "full force." There were two branches of this movement. The first was the child-centered wing created by John Dewey from the University of Chicago. Dewey believed in "creative self expression." His hopes were to reform education and, therefore, change American society. He attempted to make schools "as pleasurable and failure-free as possible" (As cited in Sears, n.d. a, p. 3). Dewey's movement believed that students who have an interest in the topics they are learning about tend to perform better than their peers. Classroom instruction in reading was improved as a result of this child-centered reform.

The second of these two branches of the Progressive Education Movement was the mass education wing, associated with Edward Thorndike (Sears, n.d. a). Thorndike and his followers at Columbia University believed in "the science of education." Thorndike believed in creating "a better, more predictable world" and in emphasized "control and testing" (Sears, n.d. a). He wrote

articles on the psychology and measurement of reading, which influenced new research by educational psychologists and reading authorities such as William S. Gray and Arthur I. Gates (Monaghan & Barry, 1999). As a result of this new influence on scientific research, there was a switch from reading series being published following the story and sentence methods to those that relied on the word method and more rigorous vocabulary control. During the early 1900s, there was a growing emphasis on reading research and investigation. Between 1914 and 1919, Charles Hubbard Judd determined that silent reading was more effective than oral reading (Sears, n.d. b). Experimental evidence found that understanding was better when children read silently rather than orally (Monaghan & Barry, 1999). The first standardized tests were developed during this decade and the term “remedial reading” entered the educational forefront.

The activity movement began to emerge in the mid-1920s as a way to meet students’ individual needs. This movement caused teachers to teach reading “... as it entered into or flowed out of children’s interest, problems, and activities” (Sears, n.d. b, p. 11). The Twenty-Fourth Yearbook of the National Society for the Study of Education was a great influence on the shaping of reading instruction during this period. From this, two philosophies came about regarding reading instruction. One side believed that students should practice sequential skills prepared by adults (Smith, 2002). Others felt that students learned best “when the child was permitted to carry out his own purposes, meeting and solving problems within the context of his own experiences and needs, and through the medium of his own activities” (Smith, 2002, p. 18).

In the 1930s, reading began to be defined as its own separate professional field. Because of this, books were published specifically for reading teachers. The basal reading series “Dick and Jane” published by Scott Foresman, was introduced during this period (Monaghan & Barry,



1999). This was the most widely read reading series from the 1930s through the 1970s with William S. Gray as the senior author.

Basal series textbooks evolved from the mid-1910s to the 1940s (Venezky, 1987). Publishers, such as Houghton Mifflin and Scott Foresman, developed basal texts as a means of giving teachers and students reading material for their particular grade level. Over time, the number of words children were expected to learn at each grade level in this series was reduced. There was also a growing belief that the most important factor in learning to read was interesting material. Other features of series consisted of word lists in the back, scripted lessons for teachers, phonics consisting of sounds to letters, suggestions for dramatizations, and developing words and sentences. During this time, illustrations were becoming more colorful and more precise lists of words were included (Monaghan & Barry, 1999).

Since the 1930s, basal texts continued to be used and phonics instruction was encouraged for third grade students, but not for second grade. First grade students were thought to not be able to do phonics at all. Each decade brought many changes along with new philosophies and methods of teaching reading (Monaghan & Barry, 1999).

Two common “themes” that “transcend” the course of the development of basal reading series are: 1. The construction of reading instruction around a conservative, narrow representation of society and the role children play in it; this stems from society’s changing attitudes towards what role school plays in developing the minds of young children; and 2. The types of “reading selections” has also changed as the “image” of society has changed beginning with religious indoctrination and moving into more moral, materialistic, and multicultural views. Skills instruction has always been a component, but intentional teaching of comprehension and

study skills have been added. Other changes in basal reading series have been the promotion of student interest in reading, gaining meaning from print, and teachers' manuals.

In the 1940s, phonics ceased to be valued and vocabulary acquisition was neglected. Reading research was limited. Learning to read was associated with a well-rounded life, and attention was given to remedial reading and comprehension. Remedial reading was defined as "specialized reading instruction adjusted to the needs of a student who does not perform satisfactorily with regular reading instruction" (Sears, n.d. b, p.16). It was during this time that students labeled as unreachable began to be considered as reachable after all. Comprehension was not a new area of study, but it was noted by Paul McKee, Senior Editor of *Reading for Meaning* published by the Houghton Mifflin Company, that the best readers were elementary school students. Students, in general, seemed not to be bothered by the fact that they were unable to understand the materials they were expected to read. The idea of "reading at higher levels" was revisited and developmental reading for high school students was explored. Developmental reading was defined as "reading instruction, except remedial, for all students beyond elementary school level" (Sears, n.d. b, p. 16). Developmental reading was beginning to be taught because educators believed that teaching students to read should not simply cease by the end of a certain grade.

The theme of the 1950s was people's potential (Sears, n.d. b, p. 20). Standardized tests were the norm, but there was some concern that these tests misrepresented students' true abilities and were really a test of intelligence and not comprehension, as the tests claimed to be. Rudolph Flesh's book *Why Johnny Can't Read and What You Can Do About It* came out in 1955 and was largely responsible for the harsh criticism of reading teachers at that time. In his book, Flesh

insisted the methods that teachers of reading used were inadequate and made no sense. He lamented that the word method being used was totally wrong and that students should be taught letters instead of whole words. His book changed the way the public viewed the teaching of reading (Sears, n.d. b, p. 21).

Another factor influencing reading instruction in the middle of the 20<sup>th</sup> century was the launching of the satellite, Sputnik, by the Russians in October of 1957. As Sputnik encircled Earth, Americans felt threatened and grew to believe that Russia was becoming a superior world power. Because of this perceived threat, the United States Congress passed the National Defense Education Act in 1958. The purpose of this act was to provide funding as a means of encouraging students to take courses of study that the government felt were important for national security, such as reading, math, and science. This prompted the National Conference on Research in English to create a committee dedicated to the research on reading. This committee met for the first time in 1959, and it was clear that there was no consensus on which methods of teaching reading were the best (Graves & Dykstra, 1997).

Towards the end of the 1950s and the beginning of the 1960s, a shift was taking place regarding reading comprehension. Up until this point, the reading process was considered perceptual and comprehension was taken for granted. The reader was simply expected to decode the symbols of the text and reproduce them as spoken language; then comprehension was assumed to occur (Noon, 2005). Suddenly comprehension was becoming a “hot topic” or new trend.

In the early 1960s, basal use was diminishing, but readers were still being used. Writing instruction was also considered a “hot topic,” as was reading disability and the cloze procedure

of the 1950s. Educators were also asked to teach reading in the content areas to all children above second grade, and there seemed to be a “re-awakening of the new education in reading instruction” (Sears, n.d. b, p. 25). Teachers began using instructional strategies such as SQ3R, advanced organizers, and the Directed Reading Activity to aid in comprehension, as well as informal assessments.

Reading research was once again prevalent, and several significant studies paved the way for new methods and greater success (Sears, n.d. b). In *A Linguistic Study of Cues and Miscues in Reading*, Ken Goodman (1964) stated that there is a relationship between oral reading errors and the comprehension process. Insignificant reading errors should not be thought of as mistakes in need of correction (Noon, 2005). Goodman’s 1965 study of oral and reading miscues revealed, “children could recognize words in context that they could not decode in isolation” (Sears, n.d. b, p. 27). In 1979, Delores Durkin completed a study of classroom reading instruction of fourth graders. Her study revealed that teachers only taught comprehension strategies less than one percent of the time. Teachers were “mentioning” comprehension rather than actually explaining or demonstrating it. During this decade of helping all individuals become successful readers, Title I, a federally funded compensatory education program for at-risk children of lower socioeconomic backgrounds, was created by President Lyndon B. Johnson. The *Right to Read Program* was also established as a means of “guaranteeing that right to each child in the United States” (Sears, n.d. b, p. 27).

Reading comprehension continued to be the subject of much research in the 1970s and its importance continued to be emphasized. According to P. David Pearson, comprehension had been viewed as “some degree of ‘approximation’ to the text read” (Sears, n.d. b, p. 31). In 1972,

Ken Goodman's Whole Language Movement began. Whole language was defined by Dorothy Strickland as "a set of applied beliefs governing learning and teaching, language development, curriculum, and the social community" (Sears, n.d. b, p. 29). Teachers were considered more as facilitators, observing children, and helping them to discover for themselves insights into reading. Pearson regarded whole language as "the most significant movement in reading curricula..." (Sears, n.d. b, p. 29).

The federally-funded *Center for the Study of Reading* was formed in 1976 and helped to focus national attention on comprehension. This organization also supported research on the topic of comprehension and strategies aimed at improving reading skills. Two of the more popular contributors were Taffy Raphael and Donna Ogle. Raphael introduced the Question-Answer-Response (QAR) strategy; a reading comprehension strategy intended to help students relate their background knowledge to the text they read (Raphael, 1986). Donna Ogle developed a graphic organizer that assists students in predicting and connecting their prior knowledge to the new information in primarily non-fiction text called K-W-L, which stands for "What I *know*, what I *want* to know, and what I *learned*" (Ogle, 1986). Researchers found that explicit and systematic instruction helped students learn reading comprehension strategies, and thus, the strategies made their way into basals and literature-based anthologies that emphasized comprehension on all levels of reading (Smith, 2002).

Many studies of the 1980s were significant and had a great impact on the practices of reading instruction. Marie Clay, from New Zealand, created *Reading Recovery*, a program that provided daily one-to-one tutoring sessions for students with significant reading deficits. During this decade, Donald Graves' studied the process of writing, and received acclaim in the field of

reading and language arts. Nancie Atwell's work in writing touched on the relationship between children's reading abilities and their interest in the materials (Sears, n.d. b,). With literature as the vehicle for this movement, emphasis was on the integration of reading and writing. Both teachers and students were active participants and worked together to construct meaning. Book clubs, literature circles, and graphic organizers were popular ways of promoting comprehension and developing reading skills. Textbooks were still being used, but during this time, teachers were acting as a support system for the text instead of the textbook acting as support for the teacher (Sears, n.d. b).

Constructing meaning was still the focus of the 1990s, and after three decades of existence, whole language was considered a "curricular force" (Sears, n.d. b, p. 36). Phonemic awareness and phonics were back in the spotlight and the International Reading Association argued that phonics instruction needed to be "embedded in the context of a total reading/ language arts program" (Sears, n.d. b, p. 38). During the 1990s, there was also a push for more diversity in the literature made available to teachers and students. Prior to the 1970s, trade books and basal reading programs left out minority groups as main characters and relied heavily on stereotypes when they were included (Sears, n.d. b).

From the beginning of reading instruction in the United States, the reading materials given to children have been influenced by the prevailing values and belief systems of the time. Methods have changed and countless researchers and educators have developed approaches that have increased students' success. These materials and methods will continue to evolve and shape the education of today's readers and the readers of the future. However, some things remain the same; that is, the purpose of reading and the importance of comprehending what is read.

### *Theoretical Perspectives*

Teachers of reading must possess an awareness of their underlying beliefs about literacy and be able to identify various theories of literacy development. When there is an understanding of the process students go through to learn to read and how they develop into proficient readers of more and more difficult texts, teachers are better able to identify instructional materials and methods that will best suit students as they master reading skills. Teachers are not only expected to teach students how to read, but to also teach the strategies needed to independently “get through” what they are reading.

Reading is defined as “the process of understanding written language” (Rumelhart, 2004, p. 1149). It is both a perceptual and cognitive process because it begins with the reader focusing on the many patterns on the page and ends with the understanding of the author’s message. Reading involves an interaction of sensory, syntactic, semantic, and pragmatic cues; and readers must be able to make use of this information in order to comprehend (Rumelhart, 2004). According to Rumelhart’s Interactive Model of Reading (1977), readers focus on comprehension and letter features at the same time. Reading begins with graphic input. While the reader processes the different letters and words, he or she also acknowledges that the meaning and context influence his or her perception along with recognition of the letters and words (Purcell-Gates, 1997). Reading is, therefore, a process of combining textual information with what the reader brings to the reading task using both top-down and bottom-up influences. Other theories of reading are strictly top-down or bottom-up with no “provision for interaction within the system” (Rumelhart, 2004, p. 1152).

Kenneth Goodman's Transactional Sociopsycholinguistic Model for reading and writing texts was first introduced in 1967. This model of the reading process is a top-down model, which emphasizes what readers bring to the reading task. It is based on the reader interpreting the text based on his or her background knowledge (Ruddell, Ruddell, & Singer, 1994). The focus is on the reader, but often readers lack knowledge of a topic and cannot make predictions. Top-down models like this often point out that fluent reading is a primarily cognitive process. However, less emphasis is placed on the perceptual and decoding dimensions of reading. Higher-level thinking skills are often emphasized while lower-level thinking skills are ignored. This model may be suitable for proficient readers, but it is not for those who are still acquiring the essential skills of reading (Abisamra, 2000).

The bottom-up approach to reading is based on phonics. This approach emphasizes the sounding out of words in order to decode text. Two theories on reading reflect this approach. Gough's model (1972) of reading attempts to give a complete information-processing account of the reading process by laying out the events that occur during the very first seconds of reading. According to this model, "Reading consists of a sequentially ordered set of transformations" (Rumelhart, 2004, p.1150). The reading process is initiated with a sensory signal and is strictly a letter-by-letter or word-by-word analysis of the input in an additive fashion. LaBerge and Samuel's model (1974) is similar to Gough's in that it is an equally detailed account of the reading process, although more perceptually oriented. Word recognition is primary and necessary for later comprehension. According to LaBerge and Samuels, comprehension is made possible "when readers no longer have to expand all of their cognitive attention on the recognition of letters and words" (Purcell-Gates, 1997, p. 2). The theory here is



that it is not possible to process information from more than one stimulus at a time. Through repetition and practice, automaticity in word recognition can occur and conscious attention is not required. Because understanding is the ultimate goal of reading, it is important to first master decoding before comprehension is possible. In this model, information flows in a series of discrete stages. Each stage transforms the input and then passes the information to the next higher level. The bottom-up approach has its drawbacks. In both the Gough and LaBerge and Samuels models, it is difficult to account for the role that prior knowledge and sentence context play in word recognition and comprehension. Also, the reader is not considered, in that his or her experience and knowledge of language is disregarded (Abisamra, 2000).

Rumelhart suggests a more interactive approach in which a variety of sources of knowledge, both sensory and nonsensory, come together at one location and provide input simultaneously. His model consists of a visual information store through which graphic information enters. The important features of graphic input are then selected using a cognitive feature extraction device. A pattern synthesizer then takes this information, along with other knowledge sources (syntactical, semantic, orthographic, and lexical), to make the most likely interpretation (Hudson, 2008).

Rumelhart's model incorporates a mechanism referred to as the "message center," in which information is held and redirected as needed. He proposes a number of knowledge sources that communicate and interact with one another. The message center allows the sources of knowledge previously mentioned to interact with one another, enabling higher-level processing to influence lower level processing. The implication is that when there is a deficiency of information in one of the knowledge sources, the reader will rely on information from another

source (Rumelhart, 2004). According to Abisamra (2000), the various knowledge sources are as follows:

*Orthographic knowledge*: The reader's perception of letters is dependent on the surrounding letters.

*Lexical knowledge*: The interpretation gained from reading is dependent on the context in which a text segment is embedded.

*Syntactic knowledge*: The reader's perception of syntax for a particular word is dependent on the context in which the word is embedded.

*Semantic-level knowledge*: The readers analyze the meaning in language which influences word perception.

Rumelhart's Interactive Model of Reading (2004) recognizes an interaction between both graphic and contextual information as the reader moves through the reading process. Because comprehension is the goal and the purpose of reading, this model is one that is essential to consider as teachers choose strategies aimed at reading comprehension. Teachers use many methods, but often there is little basis or reasoning in their selection. This model of reading helps to define what happens when readers read, how comprehension can be attained, and what educators can do to maximize skill development and comprehension of text.

#### *Reading Comprehension Instruction and "Best Practices"*

As indicated in *The Nation's Report Card for Reading* by The National Assessment of Educational Progress (2009), about half of eighth grade through twelfth grade students score *at* or *below* a basic level on the reading comprehension section of the standardized test. To combat this statistic, intervention must begin in the primary grades. Although children can read, they

often do not comprehend the meaning of the text or possess the strategies to sort through what is relevant. This can cause both frustration and low-test scores (Franzke & Streeter, 2006).

As previously mentioned, the term “best practices” is a general term encompassing a variety of teaching strategies used by teachers to teach students to comprehend text. Because there is no one right way to teach children to read, teachers need to have a repertoire of strategies that they can employ to provide students with the appropriate tools which they can use to be successful readers (Knowles, 2009). The more strategies a teacher has to draw from, the more ways he or she has to meet the diverse needs of all students (Mehigan, 2005). Besides the National Reading Panel’s definition, Dole, Duffy, Roehler, and Pearson (1991) define reading comprehension strategies as “conscious and flexible plans that readers apply and adapt to a variety of texts and tasks” (Graves, Juel, & Graves, 2004, p. 324).

Learning to be an active, strategic reader is important in order to be successful in all content areas. A variety of comprehension strategies have been identified and examined by researchers. The National Reading Panel (2000) analyzed 203 studies on text comprehension instruction and, from this, identified 16 types of instruction. However, only seven of the sixteen effective procedures originally identified “offered a firm scientific basis for concluding that they improve comprehension” (National Reading Panel, 2000, p. 4-5). These strategies help readers to build upon and activate their prior knowledge. These strategies also help students to interpret text structures, self-monitor, and reflect on what they have read (Texas Reading Initiative, 2002). Each strategy requires the active construction of meaning as the reader reads. Students should also combine strategies for even further understanding. Graves, Juel, and Graves (2004) state, “...the flexible use of reading comprehension strategies leads to independence in reading” (p.

324). Because there is substantial agreement by many researchers as indicated in the National Reading Panel's 2000 report, these are considered "a core of key strategies that students need to master" (Graves, Juel, & Graves, 2004, p. 326). The following seven strategies have been especially useful to teachers and successful in aiding students' comprehension:

1. *Making Connections by Activating and Using Prior Knowledge*

Background knowledge is the knowledge and experience that readers have acquired throughout their lives. Some educators insist that the background knowledge of readers is the single most important component in the reading process. Other educators believe that what is written on a page is merely there to stimulate the ideas that the reader already possesses and may cause a restructuring of these ideas in a new way. A third point of view is that readers build their own meaning from the text, which is merely a blueprint that readers use to build their own understanding (Porter, 1996). Research has extensively shown that activating and enriching prior knowledge increases comprehension (Pearson & Fielding, 1991).

The background knowledge and experience readers bring to a text is known as schema. Schema theory explains the effects that our previous experiences, knowledge, emotions, and understandings have on what and how we learn (Harvey & Goudvis, 2000). It is important for teachers to help students make connections to the text so that students are better able to understand what they are reading. The three different kinds of connections that students make to comprehend better are connecting text-to-self, text-to-text, and text-to-world (Keene & Zimmerman, 1997). Text-to-self connections are the very personal connections readers make between the reading material and students' own life experiences. Text-to-text connections are those that readers make based on other things they have read. These connections are made when

the reader relates the new information to a book he or she has read by the same author, a story from a similar genre, or material on the same subject. The larger connections that readers bring to the reading situation are text-to-world connections. These ideas about how the world works go beyond the reader's own personal connections. Teachers often make text-to-world connections when teaching literature, science, and social studies.

Myhill and Brackley (2004) conducted a study in which classroom observations were made and recorded, students were interviewed, and teachers' reflections were considered. The purpose of their study was to investigate how teachers, through discussion, decided what students already knew about a topic and then how the teacher built upon that knowledge to help the students better understand the concepts being taught. For their study, four students (one high-ability boy and girl, and one low-ability boy and girl) were observed. This was to find their level of participation and response during whole class instruction as it was recorded. Following three lessons, the students were interviewed to see how well they had understood the lesson. Comments made by the students in regards to prior knowledge were considered. The students were able to tell the purpose of the lesson that they were taught, but they were often confused when asked to describe, in detail, their own learning. The six teachers who participated in the study completed a reflection regarding the discussion following each lesson. Both the reflections and the video recordings of the teachers' discussions were viewed and analyzed. The reflections showed that five of the six teachers regarded prior knowledge only in terms of the classroom and school. Only one of the teachers thought of prior knowledge as developing outside of school experiences. Most of the teachers viewed prior knowledge in terms of the curriculum and the content that was expected to be covered, and what students were expected to learn. The lessons

that were developed did not include any sort of consideration as to what the students knew or understood about the topic. Any instruction that tapped into students' prior knowledge had to do, predominantly, with the teacher discussing previous lessons and reviewing what had already been taught in the classroom. Myhill and Brackley (2004) found that "asking questions which elicit children's prior knowledge can provide valuable information about children's current level of understanding, or even misconceptions that they may be harboring" (p. 10). They also found that teachers are often not taking the opportunity to help students make connections to what students already know to the new material being taught. They concluded that when teachers do take this opportunity, they are better able to gain understanding of what their students know and help them connect the old information to the new. Outside of the classroom, students have experiences that teachers should accept and integrate into the classroom instruction to help guide their planning and enhance student learning.

## *2. Making Inferences and Predictions*

Inferring is an important active reading strategy that helps the reader to make sense of what he or she is reading. When readers infer, they are using clues from the text as well as their background knowledge and experience to determine what the author is trying to say (Project for School Innovation, 2005). Teaching students how to make inferences should be very explicit. Successful inferring leads to better overall comprehension, promotes more engagement with text, helps develop reading skills, and encourages students to be more metacognitively aware.

In a study conducted by Jane Hansen and P. David Pearson (1983), a combination of 20 good and 20 poor readers were studied from an elementary school in a small town in Maine. Subjects were chosen at random from a group of 125 available students. There were four main purposes of the study: 1. To evaluate the effectiveness of teaching inference skills by combining

the strategy training procedure with the practice-only procedure; 2. To determine if the regular classroom teacher could implement the experimental teaching method rather than the original researcher; 3. To evaluate fourth grade students rather than second grade students, as was accomplished in the original study conducted by Hansen (1981); and 4. To evaluate good and poor readers instead of average readers. Students within each group were randomly assigned to participate in either the experimental group or the control group. There were three parts to the experimental treatments that consisted of: teaching students the importance of making inferences between new information and prior knowledge; encouraging students to share an experience they had encountered that was similar to the event in the text and to predict what might happen in the text before reading; and providing students with inferential questions to discuss following the reading of the text. The results of the study showed a significant benefit to teaching poor readers how to make inferences, but not necessarily any benefit to teaching this skill to good readers. The two factors attributed to these findings are that poor readers receive different kinds of instruction than more skilled readers do, and the materials used to teach good readers how to make inferences were below their reading level and not as challenging as those for poor readers (Hansen & Pearson, 1983).

Making predictions also helps readers with comprehension. Predicting helps the reader to set goals for his or her reading and helps the reader to focus his or her thinking on the reading task. Predicting includes activities such as activating prior knowledge, previewing, and reviewing. Making predictions involves reading a text and then reflecting to see if those predictions turned out to be true or verifying the predictions. The reader is encouraged to use his or her existing knowledge to “facilitate” comprehension between the known and the new. Often,

making predictions is an activity completed *before* and *during* reading of narrative texts, but it is equally important when reading expository materials (Duke & Pearson, 2002).

### 3. *Question Answering & Question Generation*

Question answering occurs when readers answer questions posed by the teacher and are given feedback on the correctness (National Reading Panel, 2000). Durkin's research from 1978-1979 showed that most teachers asked questions *after* students read to check for understanding rather than asking questions *before* and *during* reading to aid in comprehension. Further research, in 1998, revealed that even after the abundance of evidence supporting questioning *before*, *during*, and *after* reading, teachers still did most of their questioning only *after* reading (Pressley, 2000). Asking questions promotes active comprehension as well as critical analysis of information and ideas. This strategy helps readers to make meaning of the material. Some questions can be answered with the help of the text, while others require students to tap into students' background knowledge and previous experiences.

Fielding, Anderson, and Pearson (1990) studied 106 third-grade students from two average-sized cities in Illinois. Students were randomly assigned to four experimental groups and one control group. The data for this experiment was collected in two phases. Phase one used 58 students and took place in a school with three third-grade classes between February and March 1986. Phase two used 48 students in two schools each with one third-grade class from April through May 1986. The purpose of the study was to examine how discussion questions influence students' understanding of stories. After three-weeks of instruction, comprehension was measured with both free story recall and probing. Students in the experimental groups were asked questions that focused on four types of questions: *review*, *prediction*, *review-plus-justify*,



and *predict-plus-justify*. Those in the control group were asked questions that came directly from the teacher's manual, which accompanied the basal series containing the experimental stories. Students who were asked prediction questions did much better than those who were asked review questions. The most consistent finding was that the group instructed to predict-plus-justify performed significantly better than the group that was asked to simply make predictions. The study concluded that when designing discussion questions, it is more effective to be more explicit and focus on important details or ideas. Such questions are important because they help students to pay close attention to the reading and integrate the words from the text to their prior knowledge. "These forms of text processing are more desirable than processing that is unconstrained by the text (predict only) or constrained by non-central points in the text (basal)" (Fielding et al., 1990, p. 24). When asking students prediction questions, teachers should ask that their predictions be justified, or verified. Time for monitoring predictions should also be provided following further reading.

Question generation happens when "the reader asks himself or herself *what, when, where, why, what will happen, how, and who* questions" (National Reading Panel, 2000, p. 4-6). Students, their peers, the teacher, or the developer(s) of the curriculum can generate questions. Students should not only be asked to answer questions, but also to develop and pose their own questions. Students should be encouraged to ask questions throughout their reading experience. Skillful readers ask questions *before, during, and after* they read to help them comprehend the material. Asking questions *before* reading allows the reader to activate prior knowledge, make predictions, and gain a sense of curiosity about topics beyond the text. Readers, who ask questions *during* reading generate questions to clarify meaning, confirm predictions, identify a

theme, and compare or generalize information. Asking questions *after* reading encourages readers to locate information, understand and remember characters and events, and confirm the theme they had identified while reading. When readers ask questions, purpose is established, and comprehension is enhanced (Pressley, 2000).

In another study, Nolte and Singer (1985) set out to determine if comprehension was increased when nineteen randomly assigned fourth and fifth grade students from two classrooms received instruction in active comprehension and to determine if these students were able to transfer this process to other passages. Active comprehension is considered a “process of generating questions throughout reading” (p. 24). In a forty-minute period, students in the experimental group were taught, through direct instruction and modeling, how to ask their own questions *before*, *during*, and *after* reading and what types of questions are most meaningful. Following this instruction, students were given the opportunity to ask their own questions and answer fifteen multiple choice comprehension questions. Then, the teacher phased herself out of the question/answer process and the students were phased in. For ten consecutive days, students read a different narrative selection each day from the fifth through seventh grade levels of the *Reader’s Digest Reading Skills Builders* series (1977), generated their own questions, and took a comprehension test. Whole group instruction was used for the first three days and phased out for the remainder of the study by having the students work in groups of five to six, in pairs, and then, finally, independently asking questions *before*, *during*, and *after* reading. The control group, which consisted of 21 randomly assigned participants, received no direct instruction. The teacher posed the questions and most of the time was spent on assessing students’ comprehension. Prior to reading, there was a brief preview of the stories that consisted of identifying vocabulary words

and pronouncing them for the students. Then, the teacher asked a question about the story, had the students read the story silently, and gave a comprehension test. The results of the study showed that at the beginning of the study, the students in both groups were comparable, but as the study progressed, the students in the experimental group scored significantly higher in comprehension. It was concluded that when students are taught a process of comprehension by having the teacher model questions at pertinent points in a story and phasing out teacher questions, and thus phasing in students' self-questioning, the students' comprehension is enhanced, maintained, and transferred to another story (Nolte & Singer, 1985).

#### *4. Visualizing*

Visualization is the ability to build mental pictures or images while reading. Readers depend on prior knowledge or background experiences to visualize the events in the reading material (Keene & Zimmerman, 1997). Visualization is an important strategy for readers to use because it fosters comprehension. Students become more engaged and use the images to draw conclusions, create interpretations, and recall details from text. Mental imagery enhances readers' ability to monitor and evaluate their understanding. It also allows the reader to integrate his or her existing knowledge with new information. This makes for a more meaningful reading experience and encourages continued reading.

Angella Guerrero conducted one study that demonstrates the importance of teaching visualization to students in 2003. She conducted her four-week study in a rural elementary school near Austin, Texas, included 15 students, ten of whom did not have difficulty reading the words of a text, but did not understand the text after they had read it. Running Records were used to find each second grade students' reading level. Visualization was taught by brainstorming what

students believed was happening in a story and looking at only one picture in the book. Then, the researcher read the text that accompanied the picture. Students reported that the picture with the text helped them with the reading. Students were then told to close their eyes and create a mental image while listening to part of a story being read to them. The pictures they created themselves were reported to be better than those from the actual story. The amount of text read in between questioning sessions increased little by little and graphic organizers were introduced as a means of reviewing the story. Webbing was also used to demonstrate the connections between story characters. Listing was used to sequence the order in which the characters appeared and a story map was used to visually show the different parts of the story. Multiple-choice questions were also asked. Five of the fifteen students' reading comprehension scores did not improve. Guerrero continued to monitor progress throughout the school year and found that students who received shorter, more frequent sessions throughout the school year benefited more than those who receive longer sessions less often (Guerrero, 2003).

##### *5. Monitoring/Clarifying*

Comprehension monitoring occurs when “the reader learns how to be aware or conscious of his or her understanding during reading and learns procedures to deal with problems in understanding as they arise” (National Reading Panel, 2000, p. 4-6). One difference between good and poor readers is that good readers know *when*, and often times *why*, they are not comprehending a passage. Comprehension monitoring, also called metacognition or self-regulation, is a vitally important reading strategy. Metacognition is a complex term, but is most often defined as “thinking about your own thinking.” The goal of comprehension monitoring is to analyze and then decide which problem-solving approach to take. Students who are

metacognitive, monitor their learning, and, if needed, adjust the strategy that they are using. This can be done *before*, *during*, and *after* reading. Comprehension monitoring is an individual's ability to figure out right from wrong *during* reading and to make connections between what he or she already knows and the new information (Yang, 2002).

In 2007, a five-week study was conducted in California to establish whether or not systematic direct instruction of multiple metacognitive strategies was effective in assisting students in comprehending texts. A total of 119 third grade students were chosen from six classrooms at two schools. They were divided into two groups, one group from the intervention school and the other group from the comparison school. All of the students were pretested before the study and post-tested at the end. Both batteries of tests involved multiple instruments for measuring academic skill levels before and after the intervention. Both groups received 30 minutes of reading comprehension instruction for 25 days. The students at the intervention school received supplemental direct instruction of metacognitive strategies. The five part lessons included an introduction, vocabulary, reading of a story, a summary, and questions. The comparison school students received some of the same basic instruction, but were not encouraged to think aloud, use vocabulary webs, or answer thought-provoking questions. The results of the study were statistically significant inasmuch as the intervention group's vocabulary scores increased by 40%, and their comprehension scores increased by 20% (Boulware-Gooden, Carreker, Thornhill, & Joshi, 2007).

#### *6. Summarizing and Synthesizing*

Summarization is one essential skill that helps build young readers' ability to comprehend material by giving the reader the opportunity to pause and reflect. Summarizing allows the reader

to separate the main idea from the minor details, breaking down the content into something more manageable and understandable. Summarizing is one of the most difficult strategies to teach and has to be repeatedly modeled. Students also need many opportunities and a substantial amount of time to practice this strategy (Duke & Pearson, 2002).

New theories in regards to how meaning of text is represented in one's mind and how those representations determine comprehension of more complex ideas began to arise in the late 1970s and early 1980s. A theory of how representations of main ideas are constructed by skilled readers was developed by Walter Kintsch of the University of Colorado and his associates (Pressley, 2006). Their research inspired others to conduct studies on instructing students to summarize after reading to make it more meaningful. These studies produced evidence that elementary students could produce quality summaries.

While summarizing is a listing of the parts, synthesizing is the creation of the whole (Keene & Zimmerman, 1997). It requires creative and critical thinking, and is a complex process of ordering, recalling, retelling, and recreating. The reader puts together the wide array of facts that he or she has collected and connects them to a larger, more central theme or idea. Giving students opportunities to synthesize helps them to think critically and to acquire a deeper understanding of what they have read (Paris, Lipson, & Wixson, 1983). Not only should students be given opportunities to synthesize, but they should also be explicitly taught how to synthesize (Trinkle, 2009). By scaffolding and instructing students directly, they will develop higher order thinking skills and be able to apply the summarizing and synthesizing reading comprehension strategies independently.

#### *7. Evaluating / Determining Importance*

When students come to conclusions about the important ideas in the material they are reading, they are better able to exclude the insignificant information and focus on the meaning of the text. By evaluating the text, students make judgments about what they read, the ideas being presented, and become better able to explain why the material is important. The reader is also able to personalize the reading experience by forming new ideas, opinions, and perspectives while determining the author's purpose and intentions. Evaluating is an important strategy for readers because it allows students to monitor their comprehension and make connections with the text. Teachers can help students to develop this skill by explicitly teaching this comprehension strategy and modeling it often (Dole, Duffy, Roehler, & Pearson, 1991; Harvey & Goudvis, 2000; Keene & Zimmerman, 1997; National Reading Panel, 2000).

In Palinscar's and Brown's (1984) research on summarizing, which is related to determining the importance of a written passage, seventh grade students were given expository texts to read at the 5th grade reading level. They were asked to indicate where any of the five identified condensing rules could be applied. These five rules were: 1. deletion of trivia; 2. deletion of redundancy; 3. superordination, where a list of exemplars was replaced with a subordinate term; 4. selection of a topic sentence to serve as a scaffolding of the summary, and 5. invention of the topic sentence for a paragraph where one was not explicitly stated. The researchers found that it was difficult for poor students to concentrate on determining importance at the expense of trivia. Because this is one of the higher level thinking skills, much instruction must take place in order for students to fully apply the skills of determining importance and evaluating.

## Chapter Three Design and Methodology

### *Introduction*

This chapter is a detailed explanation of the study and the methods used in the investigation. Both the research question and the hypothesis are discussed. The subjects and the site at which the study took place are described and the analysis of how often each strategy is taught in the Houghton Mifflin reading program (Cooper & Pikulski, 2008) is addressed. The instruments used to assess students' understanding are also explained.

### *Research Questions*

This quantitative study is based on the following research questions:

1. To what extent are the identified research-based practices present in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008)?
- 2.If present, to what extent are the practices adequately used in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) in order to successfully teach reading comprehension?
- 3.To what extent did the instruction as posed by the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) increase student comprehension while practicing the strategies of “making predictions” and “questioning?”

### *Design of the Study*

For this study, I began by collecting research on what are considered the “best practices” for reading comprehension instruction. Through Internet exploration, the reading of journal articles and a variety of texts, seven “best practices” reappeared in peer-reviewed research time and time again, and thus, were identified as being effective in teaching students how to



comprehend text. These “best practices” are: making predictions by activating and using prior knowledge, making inferences and predictions, question answering and question generation, visualizing, monitoring/clarifying, summarizing and synthesizing, and evaluating/determining importance.

I then looked for components and qualities in the Houghton Mifflin reading program (Cooper & Pikulski, 2008), such as the scope and sequence of skills and how and when skills were introduced, to see which lined up with the identified reading comprehension strategies being taught. I documented how often those components and qualities were being taught throughout the second grade reading program used by the School District of Beloit. Then I selected two of the identified strategies “making predictions” and “questioning” and administered a pretest from Beth Critchley Charlton’s *Informal Assessment Strategies* (Charlton, 2005). This helped me to identify student understanding and application of the strategy before the strategy was taught as it was presented in the teacher’s manual of the Houghton Mifflin reading program (Cooper & Pikulski, 2008). For each strategy, a posttest from the Houghton Mifflin Leveled Readers Series (Cooper & Pikulski, 2008) was administered.

The Houghton Mifflin reading program (Cooper & Pikulski, 2008) for second grade consists of six themes with five weeks of instruction projected in all themes, except one. The six themes are: *Silly Stories*, *Nature Walk*, *Around Town: Neighborhood and Community*, *Amazing Animals*, *Family Time*, and *Talent Show*. Theme Six has four weeks of instruction. Each of the seven reading comprehension strategies that have been identified as “best practices” appeared in the reading curriculum. However, not all of the strategies are taught an equal amount of times or are labeled “target skills,” which are skills that are the focus of the theme. Some of the strategies

are taught in a special section of the theme in the Teacher's Manual and are called "Instruction: Rereading for Understanding" or "Instruction: Comprehension."

Once I collected the data from the Houghton Mifflin reading program (Cooper & Pikulski, 2008), I took two of the identified strategies, "making predictions" and "questioning," and administered a pretest from Beth Critchley's Charlton's *Informal Assessment Strategies* (Charlton, 2005). This helped me to identify student understanding and application of the strategy before the strategy was taught as it was presented in the teacher's manual of the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008). For each strategy, a posttest from the same book was given after one week of strategy instruction to check for improved understanding and application.

### *Participants and Setting*

Participants of the research study were 55 second grade students from three different classrooms at an elementary school in Southeastern Wisconsin. I chose this site and these students because I teach these second grade students at this elementary school. The selected school has a high rate of poverty and a diverse population of students from many ethnic backgrounds. Seventy-eight percent of the students at this school qualify for free and reduced lunch. Forty-two percent are white, thirty-eight percent are Hispanic, nineteen percent are black, and less than one percent is of either Asian or Native American decent. Because of its low socioeconomic student population, this school was designated as a Title I school.

### *Instrumentation*

The pretests and posttests used in this study were "Across-the-Curriculum Assessments" from Beth Critchley Charlton's *Informal Assessment Strategies: Asking Questions, Observing*

*Students, and Planning Lessons That Promote Interaction with Text* (Charlton, 2005). The “Across-the-Curriculum Assessments” was chosen in order to obtain evidence about student use of reading comprehension strategies, how they interact with text, and which strategies require more in-depth instruction. This book focuses on improving literacy and assisting teachers in gathering data about how readers approach reading, how they interact with text, and how they use the information they read. Charlton based her informal comprehension assessment on Ellin Keene’s “Major Point Interview.” Any subject can be assessed using this rubric/assessment, which is meant to help determine what students are able to do. According to Keene, this “allows the teacher to look for evidence about how a student approaches a text, interacts with a text, and uses the information in the text” (Charlton, 2005, p. 43). As a companion to the pretests and posttests, Charlton’s book included grading rubrics as a means of scoring student responses. There are no specific directions for grading, but the author suggests that those who administer the assessment tailor the rubrics to suit the needs of the specific students to whom the test is given. I kept the same wording for both rubrics, but added the level *zero* to the “making predictions” rubric, as some students did not use that strategy as instructed. (See Tables 4.1 and 4.2 in Chapter 4.)

The first pretest and posttest administered was the “Across-the-Curriculum Comprehension Assessment: Setting the Stage for Success” with a focus on “making predictions.” Students were asked the questions, “Based on what you see, what do you think this story will be about?” and “Why do you think that?” Students were instructed to take a few minutes to look over the passage and then write a response based upon what they saw. Because a fiction piece was chosen, students looked through the story and used the pictures to make their

predictions. Students' ability to make predictions was based on five levels; *four* being the highest score and *zero* the lowest. The second pretest and posttest administered was the "Across-the-Curriculum Comprehension Assessment: Interacting with the Text," which focused on "questioning." Students were instructed to write down what they were wondering about as they read the selection. Again, their ability to ask questions was based on levels, with *four* being the highest score and *one* the lowest (Charlton, 2005).

The "making predictions" and "questioning" reading comprehension strategies were chosen for testing because they are familiar to students. Second grade students have had some exposure and experience with the use of both these strategies. These two reading comprehension strategies are both taught with 21% frequency throughout the Houghton Mifflin reading program (Cooper & Pikulski, 2008).

### *Intervention*

Two pretests were administered during this study; the first was "making predictions" and the second was "questioning." Each was given on consecutive Mondays followed by five days of instruction from the Houghton Mifflin reading series (Cooper & Pikulski, 2008), including the days of the pretest and posttest. This is following the scope and sequence of the Houghton Mifflin lesson or unit plan (Cooper & Pikulski, 2008). The posttests were then administered on the following Fridays. Students were given reading material at the second grade reading level for both assessments, but different or equivalent passages were used for each test. According to Charlton's (2005) rubric implementation, students were also allowed up to twenty minutes to make predictions and write down any questions for both the pretest and the posttest.

The duration of the study was two weeks with a one-week focus on each strategy. During the first week, I focused on “making predictions.” Students took a pretest on Monday followed by strategy instruction on the same day and for the rest of the week including Friday, when the posttest was administered. This was the same procedure followed the following week for the “questioning” portion of the study.

### *Data Collection*

The data for this study was collected first by looking through the six six-week themes of the Houghton Mifflin reading program (Cooper & Pikulski, 2008). I then marked on the table when each of the seven identified reading comprehension strategies were present and taught as either a focus strategy or as another piece of the reading program. Once the strategies were marked on the table corresponding to the week in which it was taught, I totaled up the amount of times each strategy was part of instruction.

Secondly, data were collected during the two weeks of the pretest administration, strategy instruction, and posttest administration for both the “making predictions” strategy and the “questioning” strategy. The three second grade teachers administered a pretest on Monday prior to the five consecutive days of strategy instruction as taught from Houghton Mifflin teacher’s manual. The posttest was completed on Friday, following the fifth day of instruction, to determine understanding and application of each strategy.

Once the pretests and posttests were collected, I used the rubric to determine at what level each student was able to make predictions about the text. As a team, the reading specialist and I disaggregated the information, breaking it down and discussing the criteria we would use to be

certain we had a common standard for rating each test and scoring at each level. Level *four* was the highest score possible. Charlton's (2005) rubrics had a lowest score of *one*, but I scored students at a *zero* if another reading comprehension strategy was used in place of questioning or if no questioning took place.

### *Data Analysis*

#### *Houghton Mifflin Reading Program*

A separate analysis of the Houghton Mifflin reading program (Cooper & Pikulski, 2008), as a whole, was conducted as a means of determining if there was sufficient instruction of the seven identified "best practices" in reading comprehension. It is difficult to define "significant" as there was no research that I came across which defined how much time should be spent teaching a reading strategy in order for students to be able to apply it independently. The Institute of Education Sciences (IES) is a group of authors who publish practice guides in education using a search of up-to-date, evidence-based, and peer-reviewed publications (Gersten, Compton, Connor, Dimino, Santoro, Linan-Thompson, & Tilly, 2008). The IES recommends that students receiving "tier two" intervention get systematic, homogenous, small group instruction for 20-40 minutes, three to five days a week. "Tier two" intervention is defined as "a comprehensive early detection and prevention strategy that identifies struggling students and assists them before they fall behind" (Gersten et. al, p. 4). The IES also recommends that progress-monitoring data be collected after six weeks of reading comprehension instruction in order to regroup students. This

implies that in order for students to completely grasp and independently apply the reading comprehension strategies, at least 20 minutes of instruction for three days a week lasting six weeks must be implemented. The IES did not define the amount of time it takes students in “tier one” to master a taught strategy. As a part of this analysis, I looked at the marks on the table to determine if each of the seven identified “best practices” appeared in a minimum of six weeks as the “target skills” in the Houghton Mifflin reading program (Cooper & Pikulski, 2008). I confirmed that each strategy did appear as a “target skill.”

### *Making Predictions and Questioning Strategies*

Pretest and posttest results of the “making predictions” and the “questioning” strategies were compared to determine if there were any significant differences between the two. The biggest differences for the “making predictions” strategy were the amount of students who scored at a level *two* and were able to use one piece of evidence from the text to make a prediction of the events. The biggest differences for the “questioning” strategy were the number of students who scored at a level *two* and asked the meaning of a word or concept.

Scoring of this data included examination of the pretests and posttests using Charlton’s (2005) scoring rubric. Each “making predictions” test was given a score between *four* and *one*; *four* being the highest possible score and *one* being the lowest possible score. A score of *four* meant that students were able to use several related pieces of evidence from the text and make a relevant prediction of events or topic and clearly describe how the prediction was made. A level *three* score meant the students were able to use two pieces of evidence from the text and make a prediction of events or topic and describe how the prediction was made. If students scored at a

level *two*, they were able to use one piece of evidence from the text and make a prediction of events or topic. However, at this level, the students had some difficulty describing how the prediction was made. Students who scored at a level *one* made no prediction at all. (See Table 3.1 below.)

Table 3.1

*Cumulative Data of Across-the-Curriculum Assessment for Predicting*

	Level 4	Level 3	Level 2	Level 1
	Using several related pieces of evidence from the text, student makes a relevant prediction of events or topic and clearly describes how the prediction was made.	Using two pieces of evidence from the text, student makes a prediction of events or topic and describes how the prediction was made.	Using one piece of evidence from the text, student makes a prediction of events or topic and has difficulty describing how the prediction was made.	Student does not make a prediction.
Number	Pre 0	Pre 14	Pre 38	Pre 3
Percentage	Post 1	Post 10	Post 42	Post 2
	Pre 0%	Pre 25%	Pre 69%	Pre 6%
	Post 2%	Post 18%	Post 76%	Post 4%



For the “questioning” strategy test, a score between *four* and *zero* was given; *four* being the highest possible score and *zero* being the lowest. A score of *four* meant that students referred to a section of the text and clearly described how that section made him or her wonder about the message of the text and how it could be perceived or enhanced. A level *three* score meant the students wondered about or questioned what might happen next. If students scored at a level *two*, they were able to ask the meaning of a word or concept. Students who scored at a level *one* stated that they did not wonder or ask themselves any questions. Finally, students who received a level *zero* score did not ask any questions, or used the incorrect reading comprehension strategy for this test. (See Table 3.2 below.)

Table 3.2

*Cumulative Data of Across-the-Curriculum Assessment for Questioning*

	Level 4	Level 3	Level 2	Level 1	Level 0
	Student refers to a section of text and clearly describes how that section made him/her wonder or question how the message of the text could be perceived or enhanced.	Student wonders about or questions what might happen next.	Students ask the meaning of a word or concept.	Student says he/she did not wonder or ask himself/herself questions.	Student did not ask any questions or used incorrect reading comprehension strategy.
Number	Pre 1 Post 0	Pre 15 Post 9	Pre 28 Post 36	Pre 1 Post 0	Pre 10 Post 10

Percentage	Pre 2%	Pre 27%	Pre 51%	Pre 2%	Pre 18%
	Post 0%	Post 16%	Post 66%	Post 0%	Post 18%

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### *Summary*

The data were collected by first going through the six six-week themes of the Houghton Mifflin reading program (Cooper & Pikulski, 2008) to determine if the seven identified “best practices” were presented. Pretests and posttests were used to test if enough instruction time was devoted to teaching two of the seven identified ‘best practices;” “making predictions” and “questioning.” The pretests and posttests for this study came from Best Critchley Charlton’s *Informal Assessment Strategies: Asking Questions, Observing Students, and Planning Lessons That Promote Interaction with Text* (Charlton, 2005). A mark was given when the reading comprehension strategy was found to be present. These data were then used to determine how often each of the seven “best practices” was taught.

The students selected for this study were from three second grade classrooms in an urban school in Southeastern Wisconsin. The duration of the study was two weeks, which included the administration of each of the two pretests for “making predictions” and “questioning,” one week of reading comprehension strategy instruction for each strategy and the administration of the posttests. Following the collection of the pretests and posttests, a rubric was used to score each student’s response. Those responses were analyzed to determine at which level students used the “making predictions” or “questioning” reading comprehension strategies.



## Chapter Four Results

### *Introduction and Overview*

This chapter reports the results of the data collection for this research study. At first data were collected to determine if the seven identified "best practices" in reading comprehension were taught, and how often, in the Houghton Mifflin reading program (Cooper & Pikulski, 2008). The second set of data were collected to see if two of the selected reading comprehension strategies were taught well enough and for a long enough period of time to be developed and applied independently.

### *Research Questions*

This quantitative study is based on the following research questions:

- 1.To what extent are the identified research-based practices present in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008)?
- 2.If present, to what extent are the practices adequately used in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) in order to successfully teach reading comprehension?
- 3.To what extent did the instruction as posed by the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) increase student comprehension while practicing the strategies of "making predictions" and "questioning?"

### *Presentation and Discussion of Results*

In focusing on the research questions, the presentation to follow will address each question individually:

1. To what extent are the identified research-based practices present in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008)?

According to the analysis of the curriculum, making connections is taught as a target skill twenty-four times or 83%, throughout the six themes. Making inferences/predictions, summarizing, and answering questions/generating questions are all taught six times, or 21%. Visualizing is not taught as a target skill, while monitoring/clarifying is taught seven times or 24%, and evaluating is taught five times or 17% of the time.

In the section of the reading curriculum entitled “Rereading for Comprehension,” only the visualizing reading comprehension strategy is taught. Visualizing is only taught a total of three times or 10% of the time throughout the six themes. In the third section of the curriculum, “Comprehension Instruction,” visualizing is the only reading comprehension skill taught. This section of the curriculum covers visualizing only once throughout the six themes or 3% of the time. (See Appendix A for the Second Grade Houghton Mifflin Reading Curriculum-Comprehension Strategy Analysis.)

This information demonstrates that the seven reading comprehension strategies identified as “best practices” are not taught equally throughout the 29 weeks of reading comprehension instruction in the Houghton Mifflin reading program (Cooper & Pikulski, 2008). The majority of attention was devoted to making connections. Visualizing was given the least amount of attention. The other five reading comprehension strategies were taught less than half of the time.

2. If present, to what extent are the practices used frequently enough in order to successfully teach reading comprehension?

The “best practices” in reading comprehension are present in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008), but are not sufficiently developed for students to become independent in their application and proficiency of these strategies. By “developed,” I mean that students are not able to use each strategy proficiently or apply them independently. As previously mentioned, Gersten and his colleagues (2008) indicated that students must receive 20 minutes of strategy instruction three days a week for six weeks to use the strategies independently. The “making connections” reading comprehension strategy is taught an adequate amount of time. The “monitoring/clarifying” reading comprehension strategy is taught with 24% frequency. The “making inferences and predictions,” “question/answer and generation,” and “summarizing” strategies are taught as target skills with 21% frequency in the Houghton Mifflin reading program; however, these reading comprehension strategies should be taught as much as the “monitoring/clarifying” strategy. “Evaluating” is taught with 17% frequency and “visualizing” is not taught as a target skill. “Evaluating” is a higher order thinking skill and, perhaps, does not need to be taught to second grade students. “Visualizing” is taught with 0% frequency; however, this strategy should definitely be taught as a strategy because it has been identified as one of the seven “best practices” in reading comprehension.

3. To what extent did the instruction as posed by the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) increase student comprehension while practicing the strategies of “making predictions” and “questioning?”

For “making predictions” a rubric was used to determine at which level students were able to apply the making predictions strategy. Students who scored at a level *four* were able to use several related pieces of evidence from the text and make a relevant prediction of the events

or the topic and clearly describe how the prediction was made (Charlton, 2005). Those who scored a level *three* used two pieces of evidence from the text and made a prediction of the events or the topic and described how the prediction was made. A score of *two* was given to students who used one piece of evidence from the text and made a prediction of the events or the topic and described how the prediction was made. Level *one* scores were given to those who did not make a prediction at all.

Table 4.1

*Results for Making Predictions*

Level	Pretest	Posttest
4	0%	2%
3	25%	18%
2	69%	76%
1	6%	4%

After analyzing the pretests and posttests, 0% (0) of the students received a *four* on the pretest and 2% (1) received a *four* on the posttest. This indicated that zero students out of fifty-five were able to use several pieces of evidence from the text and make a relevant prediction of the events and clearly describe how the prediction was made before strategy instruction. After instruction, only one out of fifty-five students were able to apply this strategy successfully. On the pretest, 25% (14) received a *three* and 18% (10) received a *three* on the posttest. This indicated that four more students were able to use two pieces of evidence from the text and make a prediction of the events and describe how the prediction was made *before* instruction than *after* the “making predictions” strategy was taught. On the pretest, 69% (38) received a *two* and 76% (42) a *two* on the posttest. This indicates that four more students were able to use one piece of evidence from the text and make a prediction of the events and describe how the prediction was

made *after* instruction than *before* the “making predictions” strategy was taught. Finally, 6% (3) received a *one* on the pretest and 4% (2) received a *one* on the posttest indicating that one less student did not make a prediction after being instructed on the “making predictions” strategy. This information shows that the majority of students received a level *two* and used at least one piece of evidence from the text. These few students make a prediction of events or topics, but have difficulty describing how the prediction was made.

For “questioning” a different rubric was used to determine at which level students were able to apply the questioning strategy. Students who scored at a level *four* were able to refer to a section of text and clearly describe how that section made him or her wonder or question how the message of the text could be perceived or enhanced (Charlton, 2005). Those who scored a level *three* showed that they wondered about or questioned what would happen next. A score of *two* was given to students who asked the meaning of a word or concept. Level *one* scores were given to those who stated that they did not wonder about anything from the story, or did not ask themselves questions about the story. Finally, a *zero* was given when students did not follow the instructions and used a different reading comprehension strategy entirely to fill in the answer.

Table 4.2

*Results for Questioning*

Level	Pretest	Posttest
4	2%	0%
3	27%	16%
2	51%	66%
1	2%	0%
0	18%	18%

After analyzing the “questioning” strategy responses, 2% (1) of the students received a *four* on the pretest and 0% (0) received a *four* on the posttest. This means that one student out of



fifty-five referred to the text and then clearly described how that section of the text made him or her wonder or question about how the message of the text was to be perceived *before* the one week of focus strategy instruction. However, *after* strategy instruction on questioning, *zero* students were able to successfully use this strategy. On the pretest, 27% received a *three* and 16% received a *three* on the post. This indicates that six more students actually wondered about or questioned what might happen next *before* the instruction on “questioning” than *after* strategy instruction. On the pretest, 51% received a *two* and 66% a *two* on the posttest indicates that eight more students asked the meaning of a word or concept *after* strategy instruction than *before* instruction. On the pretest, 2% received a *one* and 0% received a *one* on the posttest. This indicates that *before* strategy instruction one student said that he or she did not wonder or ask him or herself any questions *before* reading the text. *After* strategy instruction, *zero* students said that they did not wonder or ask themselves any questions *before* reading. Finally, 18% received a zero on the pretest and 18% a zero on the posttest. This means that an equal amount of students responded by using a completely different reading comprehension strategy both *before* and *after* instruction. This information shows that most of the students scored a two and were able to ask the meaning of a word or concept, on both the pretest and the posttest.

### *Summary*

This chapter reviewed the data collected in this research study. An analysis of the data was presented for both the amount of time spent on reading comprehension strategy instruction from the Houghton Mifflin reading program (Cooper & Pikulski, 2008) and the level at which students were able to apply those strategies after instruction. The amount of instruction time varied for each reading comprehension strategy. Making connections is the “best practice”

strategy that is taught the most throughout the six themes of the Houghton Mifflin reading program (Cooper & Pikulski, 2008), that being 83% of the time. Making inferences/predictions, summarizing, in addition to answering questions and generating questions are all taught 21% of the time. Monitoring/clarifying is taught 24% of the time and evaluating is taught 17% of the time. Visualizing is not taught as a target skill, but is taught in the “Rereading for Comprehension” section of the curriculum 10% of the time and in the “Comprehension Instruction” section of the curriculum 3% of the time.

After being taught the “making predictions” and “questioning” strategies specifically, an analysis was completed to determine if students were able to apply those strategies. Prior to being taught the “making predictions” strategy, a large percentage of students (69%) received a *two* and 76% of students received the same score after being taught this strategy. This indicates that most students were able to use one piece of evidence from the passage read to make a prediction, but had difficulty describing how the prediction was made. Similar results were found after analyzing the “questioning” pretest and posttests. Over half of students scored a *two* on both the pretest (51%) and the posttest (66%). These students asked the meaning of a word or concept after reading the passage. Therefore, the hypothesis made in this study was accepted. The “best practices” in reading comprehension were presented in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008), however briefly, but they were not developed enough for students to master their application. Perhaps the “best practices” in reading comprehension would be more fully developed in the intermediate grade levels of this reading series.

This chapter reviewed the data collected and then presented how scoring the data in this research study. The Houghton Mifflin reading program (Cooper & Pikulski, 2008), used by the

School District of Beloit, does include focus lessons on all seven of the reading comprehension strategies that are identified as best practices. However, not an equal amount of time is devoted to the teaching of each strategy. “Making connections” is taught most frequently throughout the program (83%), while “visualizing” was taught only 10% as a “Rereading Skill” and 3% as “Comprehension Instruction; “visualizing” was never taught as a “Target Skill.”

## Chapter Five Conclusions, Implications, Recommendations, and Limitations

### *Introduction and Overview*

Chapter 5 is a representation of the findings of this research study. It includes the conclusions determined and is followed by a discussion of the research question and hypothesis. This chapter describes discoveries made throughout the study and suggests implications for teaching. Finally, recommendations are made for future research and the limitations of the study are examined.

### *Conclusions*

This quantitative study is based on the following research questions:

- 1.To what extent are the identified research-based practices present in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008)?
- 2.If present, to what extent are the practices adequately used in the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) in order to successfully teach reading comprehension?

3. To what extent did the instruction as posed by the second grade Houghton Mifflin reading program (Cooper & Pikulski, 2008) increase student comprehension while practicing the strategies of “making predictions” and “questioning?”

The Houghton Mifflin reading program (Cooper & Pikulski, 2008) does include all seven of the identified “best practices;” however, not all are given equal attention when it comes to instructing students in the use of these reading comprehension strategies. Fielding, Anderson, and Pearson’s (1991) research indicated that activating and enriching prior knowledge increases understanding of text. Making connections is the most consistently taught reading comprehension strategy, taught 83% of the time throughout the 29 weeks of reading instruction, but the remaining six “best practices” are all taught less than 25% of the time throughout the one year reading program. Visualizing is not taught as a “Target Skill” at all.

Visualizing is also one of the seven research-based “best practices” in reading comprehension, but has received much less attention. Visualizing also aids in comprehension as it encourages readers to become engaged, create interpretations, recall details, and evaluate understanding. This relates to making connections because the reader integrates his or her mental images and prior knowledge with new information (Keene & Zimmerman, 1997).

According to The Institute of Education Sciences (IES) students receiving “tier two” intervention should get systematic, homogenous, small group instruction for 20-40 minutes, three to five days a week (Gersten et al., 2008). The Houghton Mifflin reading program (Cooper & Pikulski, 2008) offers reading comprehension instruction in a mainly large group format in lessons lasting five days a week. The IES also recommends that progress-monitoring data be collected after 6 weeks of reading comprehension instruction in order to regroup students. Each

of the reading comprehension strategies taught in the Houghton Mifflin reading program (Cooper & Pikulski, 2008) are taught in one-week increments and vary in the amount of time devoted to each. Some are revisited multiple times throughout the 29 weeks of reading instruction (making connections taught during 24 weeks & monitor/clarify for 7 weeks). Some are taught the recommended 6 weeks (inferencing & predicting, asking & generating questions, & summarizing) but others are taught less than that recommended amount. In order for students to be able to independently apply the reading comprehension strategies, at least 20 minutes of instruction for three days a week lasting six weeks must be implemented.

When students applied the “making predictions” strategy after one week of instruction, it was determined that 6% scored at a level *one* on the pretest and 4% scored a *one* on the posttest, 69% of students scored a level *two* on the pretest and 76% scored a *two* on the posttest, 25% received a *three* on the pretest and 18% on the posttest, and 0% received a *four* on the pretest and 2% received a *four* on the posttest. Therefore, after one week of “making predictions” strategy instruction, 2% fewer students were unable to make a prediction and 2% more students were able to use several related pieces of evidence from the text to make a prediction. Gains were made in the number of students (7% more) who scored at a level *two*. They were able to use one piece of evidence from the text and make a prediction with some difficulty in describing how the prediction was made. However, the number of students who scored at a level *three* and were able to use two pieces of evidence from the text to make a prediction and describe how the prediction was made decreased by 7%.

Scores for levels *one* and *four* did not change significantly. There were more significant changes to the levels *two* and *three* scores. The students who scored at a level *two* could use one

piece of evidence from the text to make a prediction, but still had some difficulty describing how their prediction was made. However, the number of students who scored at a level *three* decreased by 6%, indicating that most of the students who were originally able to use two pieces of evidence from the text to make a prediction and were also able to describe how the prediction was made scored at a level *two* on the posttest.

When students were given the task of applying the “questioning” strategy after the prescribed one week of instruction from the Houghton Mifflin reading program (Cooper & Pikulski, 2008), it was determined that 18% received a *zero* on both the pretest and the posttest, 2% received a *one* on the pretest and 0% on the posttest, 51% scored a *two* on the pretest and 66% on the posttest, 27% scored a *three* on the pretest and 16% on the posttest, and 2% received a *four* on the pretest and 0% on the posttest. Therefore, after one week of “questioning” strategy instruction, more students scored lower on the posttest than on the pretest. The same amount of students, 18%, scored at a level *zero* and were either unable to ask any questions or used the incorrect reading comprehension strategy. The number of students who scored at a level *one* and said that they did not ask themselves any questions decreased by 2%. Significant gains were made in the number of students (15% more) who scored at a level *two*. These students were able to ask the meaning of a word or concept. However, the number of students who scored at a level *three* and questioned what might happen next decreased by 11%.

Similarly to the “making predictions” strategy there were no significant changes in the scores of levels *zero*, *one*, and *four*. However, more significant changes occurred in the scores for levels *two* and *three*. Fifteen percent more students scored at a level *two* on the posttest than did on the pretest, but 11% less students scored at the higher level of three on the posttest. This

indicates that fewer students wondered about or questioned what was going to happen next in the selection they read.

The data collected informs the teacher that supplemental materials should be used in order to fully teach students the seven “best practices” in reading comprehension because only one student received a level *four* in “making predictions” after focus strategy instruction and none of the students scored at a level *four* in “questioning” after instruction. More consistent, systematic, and direct instruction in reading comprehension strategies needs to take place to ensure that students are able to independently and effectively apply each strategy.

### *Implications for Teaching*

“Making connections” was a targeted skill. It was presented adequately with 83% frequency in the Houghton Mifflin reading program (Cooper & Pikulski, 2008). It is important for teachers to help students make connections to the text so that students are better able to understand what they are reading. This is one of the easier skills to learn and is covered quite frequently in second grade reading materials.

“Making inferences and predictions” was also one of the targeted skills and is covered with 21% frequency in the Houghton Mifflin reading program (Cooper & Pikulski, 2008). Predicting helps the reader to set goals for his or her reading and helps the reader to focus his or her thinking on the reading task. Predicting is one of the lower level thinking skills and is easier for students to grasp. When readers infer, they are using clues from the text as well as their background knowledge and experience to determine what the author is trying to say (Project for

School Innovation, 2005). Inferring is one of the more difficult skills and takes much more instruction and practice to perfect.

Another targeted skill taught in the Houghton Mifflin reading program (Cooper & Pikulski, 2008) was “question-answer and generation.” This strategy was taught with 21% frequency. Answering questions is easier than asking questions. Question answering occurs when readers answer questions posed by the teacher and are given feedback on their correctness (National Reading Panel, 2000). Asking questions promotes active comprehension as well as critical analysis of information and ideas. This strategy helps readers to make meaning of the material.

“Visualizing” is the ability to build mental pictures or images while reading and is an important strategy for readers to use because it fosters comprehension. The Houghton Mifflin reading program (Cooper & Pikulski, 2008) does not employ “visualizing” as a targeted skill. However, students would become more engaged and use the images to draw conclusions, create interpretations, and recall details from text if visualizing was taught.

A fifth targeted skill taught in the Houghton Mifflin reading program (Cooper & Pikulski, 2008) is “monitor/clarify.” These skills are taught with 24% frequency. Clarifying means to clear of confusion or uncertainty (Soukhanov, 1996). Comprehension monitoring occurs when readers are aware of their understanding during the reading process and learn to apply skills to help them understand when problems arise (National Reading Panel, 2000). Clarifying is an easier thinking process than monitoring, although both are on the upper level of higher order thinking skills. Both strategies should be introduced at the second grade level.



“Summarizing” is taught with 21% frequency in the Houghton Mifflin reading program (Cooper & Pikulski, 2008). Although “summarizing” is a more difficult skill to learn, it is an essential skill that helps beginning readers to build their ability to comprehend material.

“Summarizing” allows the reader to separate the main idea from the minor details, breaking down the content into something more manageable and understandable. Because it is one of the most difficult strategies to teach, it has to be repeatedly taught and modeled.

In the Houghton Mifflin reading program, “evaluating” is taught with 17% frequency. “Evaluating” is an important strategy for readers because it allows students to monitor their comprehension and make connections with the text. Teachers can help students to develop this skill by explicitly teaching this comprehension strategy and modeling it often as it is the most difficult skill to learn (Dole, Duffy, Roehler, & Pearson, 1991; Harvey & Goudvis, 2000; Keene & Zimmerman, 1997; National Reading Panel, 2000).

The students in this study made few gains in learning the strategies of “making predictions” and “questioning” with limited reading comprehension instruction. Students at the second grade level do not always have the sophisticated reading skills it takes to apply the higher order thinking skills required for the identified reading comprehension strategies. Newer research indicates a need for teachers to be prepared to teach students how to apply these reading comprehension strategies independently. By directly and strategically teaching students these strategies, they will gain the awareness of what it means to be strategic readers and the ways in which students can achieve this goal (Williams, 2002). By itself, the Houghton Mifflin reading program is not enough. Other supplemental reading strategy materials need to be used to teach students how to independently apply reading comprehension strategies and the strategies should

be practiced frequently. There is a possibility that these strategies will be developed further in the Houghton Mifflin reading series or in the use of Houghton Mifflin's supplemental reading instruction materials.

### *Recommendations for Future Research*

This study identified the seven identified "best practices" in reading comprehension and raised a number of questions that would benefit from further research. A similar study testing all seven of the "best practices" in reading comprehension would help to further determine if the Houghton Mifflin reading program (Cooper & Pikulski, 2008) was teaching each deeply enough for students' independent use. Research could also be focused on each of the "best practices" to see how they are introduced, developed, and mastered in the reading curriculum of a K-6 reading program, including such an investigation in the Houghton Mifflin reading program, which has become Harcourt/Houghton Mifflin (Cooper & Pikulski, 2008).

Teacher preparation is also a contributing factor to the success of reading comprehension strategy instruction. Gains have been made in the area of strategy instruction, but further research focusing on teacher preparation could be conducted to find ways in which to assist teachers in instructing students in the use and application of reading comprehension strategies. Students can be guided to a greater awareness of themselves as strategic readers and the purpose of reading when teachers are intensively trained and prepared to teach reading comprehension strategies (Williams, 2002).

### *Limitations of the Study*

A limitation of this study was that three different teachers administered the pretests and posttests as well as the instruction of the two chosen reading comprehension strategies. Students

were sometimes absent and were tested once they returned to school, but by that time they had missed some of the critical instruction. The instruction of the three different teachers would also be different based on each teacher's own unique teaching style. Each of the three groups of students would be different, as well. Individual needs would have to be considered and addressed during the administration of the lesson. Students did have prior instruction on these reading comprehension strategies, as they were the focus of previous lessons of the Houghton Mifflin reading program (Cooper & Pikulski, 2008).

The books used by the students could also be considered a limitation. All students used the same book, *Cat's Surprise Party*, to make their predictions for the "making predictions" strategy pretest and then the same book, *Pet Dreams*, for the posttest. Students also used the same book, *Duck Goes to the Farm*, to pose questions for the "questioning" strategy pretest and then the same book, *I Want to Go Camping*, for the posttest. These books were labeled "on level" by Houghton Mifflin (Cooper & Pikulski, 2008), but by the end of second grade, when these tests were administered, some students were still not reading at "grade level." This would not necessarily pose a problem for the results of the "making predictions" strategy, as only the title and pictures were used, but may have been a problem for certain students when asking questions on that particular pretest or posttest.

Time was also a limitation for this study. The research and analysis for this study were done in a short two-week period. The Houghton Mifflin reading program's (Cooper & Pikulski, 2008) strategy instruction moves very quickly. In the Houghton Mifflin reading program (Cooper & Pikulski, 2008), each story is intended to be taught in a one-week period for five days a week.

The strategies taught are presented, but not always retaught as they should be to allow students to fully grasp them.

### *Summary*

Comprehension is the most important skill that students can learn when it comes to reading. Researchers and educators agree with Morrow and Gambrell (2001) that this is the ultimate goal of the reading experience. In the past, comprehension was thought to happen naturally when the reader accurately recognized words. Because of this idea, little attention was given to reading comprehension instruction (Lipson & Wixson, 2003). Based on research, reading comprehension instruction needs to be explicitly taught. Skilled readers know and apply a variety of comprehension strategies *before*, *during*, and *after* reading. However, not all readers come to the reading experience knowing how to approach the material. Reading researchers have found that instead of teaching strategies, most teachers simply ask questions. Therefore, teachers must not only assess comprehension *after* the reading a text, but also use strategies or “best practices” *before* and *during* reading. The practices that are found to be the most useful to teachers and helpful to students include: 1. Activating prior knowledge; 2. Making connections; 3. Generating and asking questions; 4. Monitoring comprehension; 5. Making inferences; 6. Visualizing; 7. Summarizing and synthesizing; and 8. Evaluating. These practices are not to be used in isolation, but taught continuously and repeatedly, as needed throughout the reading process. They should be modeled and practiced frequently. When teachers directly instruct students using these “best practices,” comprehension is gained, understanding is enhanced, and higher-level thinking occurs, thus knowledge through reading is acquired.



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## Appendix A

### Second Grade Houghton Mifflin Reading Curriculum-Comprehension Analysis

	Second Grade Houghton-Mifflin Reading Curriculum- Comprehension Strategy Analysis						
<b>Theme 1</b>	Make Connections	Make Inferences/ Predictions	Question-Answer and Generation	Visualize	Monitor/ Clarify	Summarize	Evaluate
Week 1	X					X	
Week 2	X				X		
Week 3	X	X					
Week 4							
Monitor Progress		X					
Chap. Books/ Genre Study	X			O	X		
<b>Theme 2</b>	Make Connections	Make Inferences/ Predictions	Question-Answer and Generation	Visualize	Monitor/ Clarify	Summarize	Evaluate
Week 1	X		X				
Week 2	X						X
Week 3	X				X		
Week 4							
Monitor Progress					X		
Chap. Books/ Genre Study	X	X		O			
<b>Theme 3</b>	Make Connections	Make Inferences/ Predictions	Question-Answer and Generation	Visualize	Monitor/ Clarify	Summarize	Evaluate
Week 1	X					X	
Week 2	X		X				
Week 3	X	X					
Week 4	X	X					
Monitor Progress						X	
Chap. Books/ Genre Study							
<b>Theme 4</b>	Make Connections	Make Inferences/ Predictions	Question-Answer and Generation	Visualize	Monitor/ Clarify	Summarize	Evaluate
Week 1	X				X		
Week 2	X		X				
Week 3	X					X	
Week 4							
Monitor Progress			X				
Chap. Books/ Genre Study	X			O			X

<b>Theme 5</b>	Make Connections	Make Inferences/ Predictions	Question-Answer and Generation	Visualize	Monitor/ Clarify	Summarize	Evaluate
Week 1	X						X
Week 2	X		X				

Week 3	X	X					
Week 4	X				X		
Monitor Progress					X		
Chap. Books/Genre Study	X			*		X	
<b>Theme 6</b>	Make Connections	Make Inferences/Predictions	Question-Answer and Generation	Visualize	Monitor/Clarify	Summarize	Evaluate
Week 1	X						X
Week 2	X					X	
Week 3	X		X				
Week 4							
Monitor Progress							X
Chap. Books/Genre Study							
Key to Symbols							
	x = Target Skill	* = Comprehension Instruction	O = Rereading for Understanding				
<b>Target Skill Totals</b>	Make Connections	Make Inferences/Predictions	Question-Answer and Generation	Visualize	Monitor/Clarify	Summarize	Evaluate
Totals	24	6	6	0	7	6	5
Percentages of frequency	83%	21%	21%	0%	24%	21%	17%
<b>Rereading Totals</b>	Make Connections	Make Inferences/Predictions	Question-Answer and Generation	Visualize	Monitor/Clarify	Summarize	Evaluate
Totals	0	0	0	3	0	0	0
Percentages of frequency	0%	0%	0%	10%	0%	0%	0%
<b>Comprehension Instruction Totals</b>	Make Connections	Make Inferences/Predictions	Question-Answer and Generation	Visualize	Monitor/Clarify	Summarize	Evaluate
Totals	0	0	0	1	0	0	0
Percentages of frequency	0%	0%	0%	3%	0%	0%	0%