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THE EFFECT OF METACOGNITIVE STRATEGIES ON STUDENT ATTITUDE TOWARD READING

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Abstract

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The purpose of this study was to determine the effect of metacognitive strategies on students' attitude toward learning, with the strategies and learning experiences being specifically related to learning about reading. The three strategies that were explicitly taught were: previewing the text, questioning, and summarizing. Student surveys were conducted prior to learning a metacognitive strategy, and again after having time to put that strategy in place while reading independently. Data was gathered and coded to search for a correlation between explicitly learning and implementing a metacognitive strategy and improving students' attitude toward learning experiences related to reading. Most attitudes recorded on the surveys remained consistent throughout the study, but one trend emerged. On average, Students reported a positive change on each post survey on the prompt "This strategy made me a better reader". While explicitly teaching metacognitive strategies did increase student awareness of the learning process, this study did not implicate a noticeable impact on their attitude toward learning.

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CHAPTER I

INTRODUCTION

Statement of the Problem

The 2016-2017 scholastic year posed an interesting challenge for me as an educator. While each new year and each new group of students brings their own unique set of experiences, in my third year of teaching, I found myself stumped. I was graced with a rambunctious, fun, intelligent group of students. They loved to have conversations, participate in experiments, and create projects that showed to the world everything they knew and learned. They came to me at the beginning of the year as a group of students that, for the most part, were already reading at or above the end of the year third grade benchmark. Unfortunately for me, they knew what they were capable of, and their willingness to grow their learning and reading abilities was next to none.

I had in front of me, a group of students that was extremely competent, but didn't care about their learning. They were not internally driven to work hard, to grow themselves as thinkers or learners. They would much rather spend their time doing other things than thinking hard, especially if I wasn't micromanaging their activities and behaviors. I found myself incredibly frustrated. How does an educator make her students want to learn? It wasn't that my students didn't know how to read; it was that they didn't know how to think about their reading. I considered many variables that go in to teaching reading every day. The quality of literature, the way the lessons were given, the type and

amount of practice students had to attempt to implement new strategies and skills; each of these components of daily teaching and more were reflected upon daily as I tried to solve the problem at hand. In the end, I decided to see what might change if I made the teaching of metacognitive reading strategies much more explicit. Because my students were so competent, I was worried that I wasn't being clear enough with whole group instruction. I decided to break everything down and explain why each strategy was being taught and how it would help them grow as readers.

In the 2017-2018 school year, I decided to do just that. *What might happen*? I asked myself, *if I explained to my students the WHY behind each lesson that we were doing, and how it would help them?* When I thought back on what my own educational experience was like, I realized that I could not ever recall a teacher telling me the purpose behind what we were doing, or how it would help me grow as a student and citizen. Through the research and literature review process I found this sentiment from an issue of *Educational Leadership* ringing true - "No matter what we decide students need to learn, not much will happen until students understand what they are supposed to learn during a lesson and set their sights on learning it." (Brookhart, Long, and Moss, 2011). I was always a good student, and I loved to read. Would I have loved it *more*, tried harder, applied my learning, if I understood the purpose? While I can't definitively say a positive change would have occurred, I believe it would have. As an adult learner, I always feel more at ease, more willing to tackle a problem when I know *why* I am working on something and its practicality. In my opinion, it is the same for student learners.

Purpose of the Study

I was always the kid with their nose in a book. I don't remember a time when I didn't know how to read or enjoy it immensely. Sure, I'd do other things with my friends, and was plenty active throughout my childhood. I had my fair share of cuts and bruises from playing kick the can in the dark with my neighbors or racing my sister up the tree in our backyard. But I didn't love those things the way I loved getting lost in a book. I consumed books like they were air; I could never get enough, and I easily would work through one or two books a day if my parents would let me sit still for that long. I could visit places, learn new things, connect with others, laugh, cry, and be terrified all in the same 200 pages. I still can do those things, and if life allowed me the time, I would snuggle in to a new read and hunker down until I had turned the last page and sighed with the satisfaction of completion. Now, as an adult and educator, I want my students to have that same passion for literacy. I have a sign in my classroom library that reads "Books Open Doors", and I couldn't believe that to be more true. I long for my students to connect with characters in a fiction text, to learn about something exotic and new, to get lost while sitting on the living room couch. Ultimately, that was my goal; to establish within my students a love for reading.

Comprehension is the heart of literacy. As Stephanie Harvey and Anne Goudvis so delicately put it in their book, *Strategies that Work: Teaching Comprehension for Understanding,* "If the purpose for reading is anything other than understanding, why read at all?" (Harvey & Goudvis, 2007). My students had moved past the stage of "learning to read" and were now transitioning to "reading to learn." This is not an easy transition for young learners to make. In *Comprehension Connections* author Tanny

McGregor explains, “it’s not easy to explain these [inferring, questioning, determining importance] abstract reading strategies to elementary readers, yet knowing how they work and how to use them is an important first step to connecting with texts” (McGregor, 2007). That was exactly what I needed my students to do; to connect with their texts.

If I could show my students the importance of the work they were doing and the way that they spent their independent reading time, I believed that I would be able to inspire them to dig deep, to find meaning, to apply literacy to their lives. Then, they too would feel the same way about reading as I did as a child, and still do as an adult. In short, the aim of this study was to determine if the explicit teaching of metacognitive reading strategies could have a positive impact on my students’ motivation to read.

Research Question and Hypothesis

To determine the effect of explicitly teaching metacognitive strategies on student attitude toward reading, I needed to conduct a study that would identify students' initial attitude toward reading and attempt to measure the change that happened over time as I explicitly taught metacognitive strategies and allowed time for students to practice independently. As I worked through this data collection, I searched for any correlation that may have existed**.** After scouring for literature around my topic and observing my students, I developed the following research question:

How does the explicit teaching of select metacognitive strategies impact 3rd grade student’s attitude toward reading?

I didn't have an explicit curriculum to follow or implement, so the strategies that I chose were based on research, best practice, and observations of what my students needed to review or to be taught.

I hypothesized that if students had a clear understanding of why chosen strategies or skills were being taught to them, their motivation to master this work independently would increase.

CHAPTER II

LITERATURE REVIEW

Literacy seeps into every aspect of student's daily life in the classroom. Not only do students need to be successful readers during "Reading", they must also be successful readers in Writing, Science, Social Studies, and Math. Teachers are always teaching reading strategies and comprehension, even if they aren't *really* teaching reading. This research study focuses on the importance of metacognition and reading comprehension, as well as student engagement and motivation. The literature review will discuss the structure and importance of the Workshop Model and independent reading practice, two key components of the procedures of this study.

Reading Workshop and Independent Reading

Over time, trends change. There have been a vast number of movements that have worked their way through the world of education; topics that became important and ways of providing our students with instruction that were best. As society grows, learns, and changes over time, educators have continued to research to determine what is best practice to meet the needs of their students. Enter Reading Workshop. Reading Workshop (Calkins, 2010) is an instructional framework. While Calkins did also publish a curriculum to go with Reading Workshop, the framework can be carried out with any curriculum program. Its predictable format can be applied to any content area and gives an entry point to all learners at various stages of development and readiness. For the

purpose of this study, the literature review specifically on the components and benefits of Reading Workshop.

There are five Workshop components to any given lesson in Reading Workshop; Interactive or Shared Reading, a Mini-lesson, Independent Reading, Conferring, and Share. The first is Interactive or Shared Reading. This 10-15-minute introduction to Reader's Workshop invites the teacher to set the stage for learning and prepare students for the upcoming teaching points. In an Interactive Read Aloud, it is the teacher's responsibility to model fluent reading, expose students to and identify the author's craft and structure, build vocabulary and comprehension, model metacognition (sometimes called "thinking aloud"), and to invite students to involve themselves in active engagement through discussions with their peers (sometimes called a "turn and talk"). Shared Reading takes on all the experiences and expectations of Interactive Read Aloud, with the addition of students being able to see the text as the teacher reads. More than that, Interactive and Shared Reading improves classroom climate, helps to create a print-rich environment, and makes more challenging texts available to students (Sharpe, 2009). The second component of Reader's Workshop is the Mini-lesson. The Mini-lesson is the teacher's opportunity for direct instruction to the entire class. While there are different types of mini-lesson designs to follow based on the needs of the classroom for that day, each Is designed to be no longer than 15 minutes. It is important that the mini-lesson be succinct and to the point, so that students may have ample time to practice the skill or strategy that they were being taught in small groups and independently. Lucy Calkins notes that good teaching is the one thing that matters most in a child's reading instruction, and that teachers must explicitly teach strategies that proficient readers use that students

can do independently or with a partner in order to increase their comprehension (2010). Independent Reading is the third component of Reader's Workshop. Many researchers and educators argue that it is the most important component in the Reader's Workshop Model. Learners need long stretches of time to read. There is only so much that we as educators can do for students in front of the room, teaching a Mini-lesson. Educators need to allow them with the time to dig in to books that are just right so that they can practice the strategies and skills we are teaching them. Teachers only have so many instructional minutes in every day, and everything that needs to be taught has value and importance. Calkins, however, and many other researchers and literacy enthusiasts will argue that "the single most important things we can do to turn schools around, making them into places where youngsters thrive as readers, is to clear out the time and space so that children can learn to read by reading" (p.7, 2010). Student choice is an important component implemented into Reading Workshop. Skills, strategies, and habits that they are being taught can be applied to a variety of different types of texts at different complexity levels. This invites students to choose books that interest and challenge them, while still applying the lesson. A multitude of research over the past few decades of education has shown us time and again that providing students with time to read independently will increase students' reading comprehension, vocabulary growth, spelling facility, understanding of grammar, and world knowledge (Cullinan, 2000). To wrap up Reader's Workshop, students are again gathered together to share the work they did independently or to link their learning to prior or upcoming learning experiences. While this may take many shapes and forms depending on the type of work that was done and the expected learning target, this helps provide closure to the lesson. It also allows

the teacher an opportunity to use formative assessment to determine which students were able to meet the learning target, and who may need a re-teach.

This format of literacy teaching provides many advantages to students. It gives them direct, explicit instruction, guided practice with gradual release and support from the teacher, and time to synthesize what they've learned to apply strategies and skills independently with meaningful context.

Reading Comprehension

The National Reading Panel identified 5 Essential Components of Reading: Fluency, Vocabulary, Phonemic Awareness, Phonics, and Comprehension. Comprehension is the heart of reading. For Comprehension to take place, the other four Essential Components of Reading must be intact. Because this research study focused on student engagement and learning new reading strategies, it is important to build background knowledge about the different components of reading comprehension and its influential role on reading.

Merriam-Webster defines comprehension as "the act or action of grasping with intellect: UNDERSTANDING" (2018). It can be inferred then, that reading comprehension is simply understanding or grasping what one reads. Around third-grade, students begin to shift their thinking around reading from a lens of "learning to read" to "reading to learn", and comprehension plays a key role in this new thinking process. Research has identified four sub-components of Comprehension: Vocabulary, Metacognitive Strategies, Background Knowledge, and Text Structures. If students are going to understand what they are reading and how to apply it to their lives, these sub-

components of comprehension, like the other four essential elements of reading, need to be in place. In its simplest form, vocabulary includes knowing what a word looks and sounds like, as well as knowing it's meaning. Each student has their own unique set of vocabulary knowledge based on their own unique experiences as readers and as children. Increasing students' opportunities to read independently also increases their vocabulary development. Without any developed vocabulary, it is easy to see how students' reading comprehension would suffer. Readers must be able to recognize words in a text prior to understanding the greater meaning of the passage. Like vocabulary, each student comes to school each day with their own individual set of background knowledge. Background knowledge is built specially by each child, derived from their life experiences and the texts that they have been exposed to. If students have background knowledge around a topic that they are reading in a text, their comprehension of that text will deepen. Likewise, if a student has limited or no background knowledge around a topic they are reading in a text, their comprehension will be drastically hindered. Because of their limited background knowledge, many of the content specific vocabulary terms will be unknown to them, and much more of their thinking power will be given to solve unknown words and build this new vocabulary instead of deepening their comprehension. When considering reading comprehension, National Assessment of Educational Progress Panelist Daniel Willingham explains to educators:

> Whether or not readers understand a text depends far more on how much background knowledge and vocabulary they have relating to the topic than on how much they've practiced comprehension skills. That's because writers leave out a lot of information that they assume readers will know.

> If they put all the information in, their writing would be tedious. But if readers can't supply the missing information, they will have a hard time making sense of the text. (How Knowledge Helps, 2006).

Some researchers argue that Text Structure is a type of background knowledge. In *Psychology Today,* Johanna Williams writes that being familiar with the structure of any given text makes information more readily accessed by the reader.

> Readers are applying cognitive patterns...these patterns guide them to the recognition that (for example) a given text compares two entities, or that it presents a problem and a solution to that problem. Readers who can identify the structure of a text are better able to locate the information they need for successful comprehension (2017).

Williams goes on to discuss the importance of knowing text structure especially when working in expository texts. This text type is often more challenging for students as it can deal with complex and unfamiliar content and may be structured in a variety of ways (2017). A study Williams and her students at the Teacher's College developed, called Close Analysis of Structured Texts (CATS) was implemented to teach her students five basic text structures: sequence, comparison, cause-effect, description, and problem-solution. Findings from the year-long evaluation were deemed "positive and significant" by Williams; that students could benefit from explicit comprehension instruction as early in their educational career as second grade, and that their achievement could be increased by encouraging a focus on text structures (Psychology Today, 2017).

Metacognition

Metacognition has two major components: knowledge about cognition and the regulation of that cognition (Van Kraayenoord, 2010, p. 278). The National Reading Panel (2000), in conjunction with RAND Reading Study Group (Snow, 2002) have encouraged educators to explicitly teach key cognitive strategies such as predicting, questioning, summarizing, and clarifying. These reports and others synthesize the considerable research evidence that supports the direct instruction of strategies and indicates that this instruction improves reading comprehension (Van Kraayenoord, 2010, p. 285). While the debate is still raging about which metacognitive strategy is the most effective, research has indicated that the focus of instruction should not be on any single or individual strategy, but instead on teaching *multiple* strategies so that students can build a repertoire to choose from and to select those that are most appropriate given their reading situation at any given time. Some educational experts have cautioned providing *too many* strategies to developing readers at once. Students, especially primary aged students, can easily become overwhelmed or confused when presented with an excess of options. As literacy teachers, we want our students to have a toolbox they can use, not a list of strategies they don't understand or easily intermix. While it is essential to provide students with choice, that choice should be limited until they are ready and able to handle having a wider selection variety. As students develop, they become more aware of their own thinking about themselves, the tasks and the strategies that are useful for reading and that "good comprehenders" are more aware than "poor comprehenders" (Van Kraayenoord, 2010, p. 292). It is possible, and should be kept in mind by educators, that metacognitive knowledge is likely to be domain-specific. Students also may be aware of

metacognitive knowledge but unable to communicate it to something else due to a lack of language abilities. The study also found that while students may know about metacognitive strategies, they may not know when or how to use them, especially in a particular text or context (Van Kraayenoord, 2010, p. 292).

Student Engagement and Motivation in Reading

Engaging students and igniting their internal motivation to read is essential. Capable students who are uninterested in literacy will plateau, and eventually become students in need of literacy intervention if they do not continue to engage with literacy through their educational career. There are many factors to consider when examining reading motivation; including a student's self-concept and value of reading, allowing student choice, time spent discussing books, variety of texts available, and the use of incentives to increase motivation (Gambrell and Marinak, 2009). It is also important to consider that out-of-school literacy skills that students need to engage and survive in society may not be adequate for, or easily transferable to, academic reading and writing tasks (*Taking Action on Adolescent Literacy,* Irvin, Meltzer, and Dukes, 2007). Teachers often do not bridge the gap between out-of-school literacies and academic assignments because they assume students *will not* or *cannot* participate. Irvin et. Al put the pressure back on educators; claiming that it is the teacher's responsibility to create academic assignments that are relevant to life outside of the classroom. They (Irving, et. Al) go on to point out that once students are motivated, a positive cycle of motivation and increased ability is likely to result:

> ...students are able to persevere with difficult reading if they are interested in the subject at hand and if they get appropriate help – that is, if they can

> be motivated and supported to *engage* with the task. Engagement with learning is essential, because it is engagement that leads to sustained interaction and practice. Coaching, instruction, and feedback become critical to ensure that students develop good habits and increase their proficiency. Increased competence typically leads to motivation to engage further, generating a cycle of engagement and developing competence that supports improved student achievement (2007).

Students need to develop motivation to read in elementary school. While many view motivation and engagement as "warm fuzzy" feelings students are showered with by educators to make them "feel good", we have learned that they are essential to developing literacy and learning. Research has shown that students who go unmotivated to read and write to middle and high school develop a view of themselves as people who do not read and write. The challenge for educators then becomes the same challenge that spurred on this research study: *how* do educators motivate students so that they engage in tasks, are willing to accept instruction, practice, and take advantage of feedback, which then will improve their skills and their literacy achievement? The authors argue that because motivation leads to engagement, motivation to read is where teachers need to begin. Motivation serves as the point of entry and engagement over time is the vehicle through which classroom instruction influences outcomes (Irving, et. Al, 2007).

Summary

As made evident by the literature that was reviewed in this chapter, teaching reading and developing student motivation to read are two intricate and complex concepts and tasks. Comprehension, a multifaceted concept, is an essential component in a

student's ability to engage with a text and practice reading autonomously. While many educators believe a student's motivation to read to be unnecessary, believing students will learn to read without it; research has proven the importance of student motivation and engagement. Students must be motivated readers to continue to develop literacies and deepen knowledge and understanding about reading.

CHAPTER III

METHODOLOGY

The purpose of my study was to determine the impact of explicitly teaching metacognitive strategies on student attitude toward reading. I wanted to determine whether direct whole group instruction would have a positive effect on my students' feelings toward independently reading. Over the course of 13 weeks, I constantly deferred back to my research question to guide my inquiry and exploration: *How does the explicit teaching of select metacognitive strategies impact 3rd grade student's attitude toward reading?*

Context of the Study

This study was held during the second semester of the 2017-2018 school year in my third-grade classroom at Houdini Elementary School in Appleton, Wisconsin. Houdini is one of fifteen elementary schools in the Appleton Area School District. It is the second largest elementary in the district, with an enrollment of 630 students. 90 of those students were third graders in the 17-18 scholastic year, and twenty-two of those students were in my section of third-grade. The participants in the study were twenty of my third-grade students. All students in my classroom participated in independent reading for a minimum of twenty-five minutes per day. This time was allotted in our schedule in the morning, between morning recess and lunch. Following the workshop model, all students received direct instruction through a mini-lesson, were given time for independent practice, strategy groups, book clubs, and writing about reading, and were

offered time for a closing/share before dismissal. Students were also given opportunities to continue the work they started during Reader's Workshop every afternoon for thirty minutes during our Intervention and Enrichment (I/E) time block. In our building, I/E is scheduled for 30 minutes every day. It is up to the teacher's discretion to implement reading, writing, or math interventions or enrichment opportunities based on student needs. Students who were involved in an intervention were required to attend at this time and were unable to continue to practice the independent reading skill they had learned in class. Of the other students who were available to do so, not all chose to participate in reading practice every day during this time. Students not assigned to an intervention or enrichment program were given the option to independently read, independently write, buddy read, buddy write, practice word study, or work on math extensions and games. Because student's activity choices varied daily during I/E, I knew any independent reading practice during this time would be considered "extra reading minutes" in their day.

Role of the Researcher

While conducting the study, I was a twenty-seven-year-old white female teacher settling into my second year at this school. While I did not live within school district boundaries, this was the district where I myself had attended school; my parents lived just down the road and it felt, at times, like I was at home. My commute to school from my actual home was about 40 minutes each way by car. I earned my bachelor's degree in Elementary Education with a minor in Early Childhood Development through the University of Wisconsin-La Crosse and at the time was working toward my master's degree in Reading with a Reading Specialist Certification, also through the University of

Wisconsin-La Crosse. While it was my second year at Houdini, it was my first experience teaching third grade. In total, it was my fourth year of teaching full time after working in fourth grade for one year each at Mindoro Elementary and Nicolet Elementary prior to my year of teaching fourth grade at Houdini. Before teaching full-time I taught kindergarten and second grade as a long-term substitute immediately following the completion of my undergraduate degree in December 2013.

I believe that all students have the capability and potential to become life-long learners. As educators, I believe it is our responsibility to foster a love for learning, to facilitate as students' experiment, explore, and collaborate to find new learning and valuable experiences. We must meet students where they are and understand them as children and students alike. I was in a powerful position, as an educator that had developed meaningful, positive relationships with my students to show them the love of reading that they could have and all the wonderful things that literacy could do for them. I wanted to light a fire in their souls that would burn for reading and learning for the rest of their lives. I was also hoping to improve my own instructional practices by becoming more explicit and intentional in my whole group instruction and mini-lessons in order for students to understand “why”.

While I worked through this study, I had to wear multiple hats. I couldn’t stop being a classroom teacher in order to examine data and the findings that lay within. As the classroom teacher, I provided students with explicit whole group instruction around metacognitive strategies that were both appropriate for their needs and aligned to Common Core State Standards and district expectations. I created and met with strategy groups based on mini-lessons, conferences, and observations during independent work

time that helped those students have more opportunities for guided practice with the focus strategies. As the researcher, I took additional observations and collected data through surveys to evaluate the effectiveness of the teaching that was taking place. I designed a data collection tool that would allow me to consider students attitude toward reading both prior to learning and after having time to implement those strategies independently. I then analyzed the data to consider any trends in my findings.

Description of Participants

Each student in my third-grade classroom at Houdini Elementary was invited to participate in the study on a voluntary basis. Information was sent home to parents and families to aid in their understanding and request for consent. A copy of the informed consent form that was completed by all participants can be found in Appendix A. Two of the students that were in my classroom did not participate in whole group reading instruction due to their Individualized Education Plans (IEPs). Together their case manager and families determined it would be best not to participate in the study. This left me with twenty third-grade participants; ten male and ten females. One student received reading support for an Intellectual Disability. Three students were identified as English Learners (ELs), although they declined services in order to attend Houdini, which was their home school. Of the twenty student participants, one was Indian, two were Hmong, one was Mexican-American, one was Native and fifteen were Caucasian.

Research Design and Rationale

The study I conducted followed a quasi-experimental design. The research took place within my own classroom, with my own students serving as participants. For me, it

was practical action-research. I decided to conduct the study this way so that I could consider my own teaching practices in addition to examining the causal relationship between explicit teaching and student motivation to read. I wanted to know if adjusting my instruction would have a positive impact on my students' feelings toward reading. I continued to structure Reader's Workshop in the same manner during the study as I did throughout the beginning of the year. I didn't want to disrupt our routines and expectations, and the workshop model is considered best practice. Adding in the short student survey did not disrupt the flow of our normal work day and the way that students engaged with independent reading after direct whole group instruction.

Procedures and Data Collection Plan

In the attempt to determine if a correlation exists between student motivation to read and the explicit instruction of metacognitive strategies, I needed to collect baseline data. I started with observing my students during their independent reading time. I considered their habits and observable behaviors. With paper and a clipboard in hand, I recorded anecdotal notes based on what I could see and hear students doing while they were independent reading. I asked myself if my students appeared to be engaged; were they even looking at their books?

While watching my students was one way to collect data, I also wanted them to tell me how they felt about the work they were expected to do. I drafted a survey for students to complete that would shed some light on how they were feeling about independent reading and the metacognitive work they were being asked to do. A copy of the student survey can be found in Appendix B. I created the survey and wanted it to be something that could be used before and after explicit teaching of each metacognitive

strategy. Prior to a new lesson, I would distribute the survey to each student. Students were instructed to write the name of the strategy this survey corresponded to along with their assigned number on the top of their page. To ensure confidentiality, students did not ever put their names on the surveys they submitted. I read the survey questions aloud to the students a minimum of two times to ensure that they heard the prompts correctly and had adequate time to respond. Students were encouraged to answer as openly and honestly as they were able; they knew that their responses on these surveys had no connection to their grades or end of year report card. The survey prompts that students were given to respond to were: *I was looking forward to learning this new strategy / skill, I understand how this strategy / skill will help me as a reader, I am going to try this strategy / skill during my independent reading, I am excited to use this strategy again when I read independently, This strategy / skill made me a better reader,* and *Knowing this strategy / skill makes me excited for future learning opportunities.*

After each initial survey, students were explicitly taught or retaught a metacognitive reading strategy. In the Workshop Model, direct instruction is designed to be succinct. Lessons should not exceed ten minutes long, including the connection, teaching point, guided practice, and send off. Because I was making a conscious effort to make this instruction more intentional and explicit, I extended my teaching time to fifteen minutes. This still provided students with a minimum of twenty-five minutes to practice what had been taught to them through independent reading.

Students were taught to preview the text prior to reading, to ask questions while reading, and to summarize reading during or after the completion of reading a section of text. To ensure that students had enough time to hear, practice, and attempt to internalize

the skill or strategy that was explicitly taught, I provided students a minimum of two weeks to attempt the strategy or skill independently and with a reading partner before taking the post-survey. The first week after the pre-survey was spent instructing students about the target strategy. On the first day of instruction, the target strategy was introduced to students and explicit instruction was given to the students in a whole group format. This included modeling the target strategy with a mentor text and thinking aloud as I worked through the strategy. On the second and third days after the pre-survey, students reviewed the target strategy and how it helped them and practiced implementing the strategy in small groups and pairs. This allowed students to begin to attempt the strategy while feeling supported and encouraged by group members. On the fourth and fifth days after the pre-survey, students attempted the target strategy independently after reviewing the strategy. During this independent practice, I conferred with students who needed additional support in strategy groups or one-on-one. In the second and third weeks of working with one strategy, students were expected to implement the strategy independently. They were reminded of the focus strategy prior to independent reading, book shopping, library checkout, and buddy reading activities. Students were also encouraged to implement and discuss the target strategy during book club meetings. As student mastery of the skill was monitored, strategy groups and one-on-one re-teaching conferences were held as needed. Students were given a minimum of one week to practice the target strategy autonomously before participating in the post-instruction survey. Prior to distributing the post-survey, students reviewed what they had learned over the past two to three weeks about the target strategy and how it benefited them as readers and thinkers.

Students independently responded to the post survey in the same manner as the pre-survey. Upon completion of the post-survey, students were encouraged to continue to use the new metacognitive strategy they had learned and practiced. Once all surveys were collected, I coded the pre and post survey for every student and analyzed the results.

With the question *How does the explicit teaching of select metacognitive strategies impact 3rd grade student's attitude toward reading?* weighing heavily on my mind, I needed to decide how to value the data. The survey invited students to respond on a scale from 1 to 5, where 1 indicated strong disagreement to the prompt, 3 indicated a neutral response, and 5 indicated strong agreement to the prompt. I wanted to know the effect the teaching was having on student attitudes, so I examined the change in responses from the pre-survey to the post-survey. To code and analyze the data I collected from students, I created a table within Microsoft Excel. First, I inputted the values of each question and response from participants for the pre-survey. When post-surveys had been collected, I also recorded these values. Lastly, I considered the change in values. If students increased their response from the pre- to post-survey, a positive change was recorded (for example, if a student who gave prompt one a 2 on the pre-survey gave prompt one a 4 on the post-survey, +2 would reflect the overall change). If students decreased their response from the pre- to post-survey, a negative change was recorded (for example, if a student who gave prompt one a 3 on the pre-survey gave prompt one a 1 on the post-survey, -2 would reflect the overall change). In situations where students marked the same responses to prompts on the pre- and post-surveys, no change (0) was recorded. In addition to survey data, I continuously collected observational anecdotal notes throughout the study. This allowed me to note student

behaviors throughout independent reading over time. These notes were organized by participant, so that comparisons could be made throughout the study to consider if their attitude toward reading shifted in any manner. The data tables can be seen in Chapter Four's Discussion of Findings as well as in the List of Tables.

Limitations of the Study

This study puts a lot of weight on the assumption that students will complete their pre- and post-surveys with complete honesty and personal reflection. That is a big thing to ask a group of eight and nine-year-old students. While I encouraged them to be honest, reminding them that their honest responses were the only thing that would keep the data valid, I worry that students were concerned about telling me what they thought I wanted to hear. Third graders still have a strong desire to please their teacher, and I would understand if students recorded responses on their surveys that didn't match their true feelings. I also was concerned about students questioning their report cards. It was explicitly stated to students before the study, in the informed consent (Appendix A) and prior to every survey that their answers would not impact their report cards or final grades. However, it is possible that some students still held on to this fear throughout the research process.

Another limitation of this study was the issue of time, more specifically, the time that students spend in the classroom. Some of my student participants were regularly removed from the classroom to receive additional supports, or for various other school activities. While the study lasted thirteen weeks, it is often difficult to find a day in an elementary school setting where every child is present for the entirety of the day. Students who were absent for the initial teaching needed to participate in re-teaching

prior to taking their initial survey. Students who were absent during designated work time missed opportunities for independent practice to internalize the focus strategy. Students who were absent during the post-survey needed to be given additional time to share their feelings about reading after the teaching and practice time that was given. Not every student was able to make up or complete every pre- and post-survey, which had a direct impact on the data that was collected.

Additionally, the sample size of participating students is a limitation in itself. I was unable to expand the population of students participating in the study, we were not logistically able to coordinate teaching all four sections of third grade at the same time, or even shuffling teachers to and from different classrooms. I was not comfortable asking my co-workers to implement and collect data around a research study that was my own and felt frustrated that I couldn't guarantee the same quality or type of instruction, guided practice, independent practice, or distribution of surveys. This limited the available population of students to those in my own classroom, which was a much narrower audience than intended. A small sample size decrease the validity of the data obtained, and makes it harder to determine what implications the study may have on this group of students on a state, national, and worldwide scale.

Summary

Throughout the course of the research process, I delivered precise, explicit instruction around metacognitive strategies in a whole group mini-lesson. Students practiced and implemented these strategies in small groups and independently while reading. By distributing student surveys and observing student attitudes and behaviors during independent reading, data was collected. Surveys were given to students prior to a

whole group learning experience and after they had been given opportunities and time to process this information to gauge if students' attitude toward reading would be impacted by explicitly teaching metacognitive strategies.

CHAPTER VI

DISCUSSION OF FINDINGS

Results

The purpose of this study was to determine if the direct instruction of specific metacognitive strategies would have an impact on student attitudes toward learning reading. While instructional strategies were explicitly taught all third-graders in my classroom, twenty participated in the study. Prior to the instruction of strategies, observations and anecdotal notes were taken to gauge student involvement in independent reading. They also all participated in a pre-instructional strategy survey to determine a baseline for student's attitude toward learning reading. After students were given time to process and understand the strategy, a post-instructional survey was given to see if the explicit instruction of a given strategy had an impact on student attitudes toward learning reading. Observational data and anecdotal notes were continually taken and updated throughout the research process. This chapter will briefly review the research question that was presented and a description of each instructional strategy that was explicitly taught to my third-grade students. The results obtained through the data-collection period of the study will be presented and organized according instructional strategy. Data gathered from each strategy is organized in its own data table for the pre-

and post-instruction survey. Because three students were unable to complete both the pre- and post-instruction surveys, their change was considered inconclusive. This left me with 102 data points to consider. To quantify the change that occurred over time, values were assigned to student responses. If students increased their response from the pre- to post-survey, a positive change was recorded (for example, if a student who gave prompt one a 2 on the pre-instruction survey gave prompt one a 4 on the post-instruction survey, +2 would reflect the overall change). If students decreased their response from the pre- to post-survey, a negative change was recorded (for example, if a student who gave prompt one a 3 on the pre-instruction survey gave prompt one a 1 on the post-instruction survey, -2 would reflect the overall change). In situations where students marked the same responses to prompts on the pre- and post-surveys, no change (0) was recorded.

The findings will be presented by comparing pre- and post-survey data between each of the instructional strategies and will consider the overall impact of explicitly teaching metacognitive strategies on student attitude toward learning to read.

Research Question

The research question that guided my study and the data-collection process was:

How does the explicit teaching of select metacognitive strategies impact 3rd grade student's attitude toward reading?

To answer this question, multiple data points needed to be collected. Data collected prior to explicitly a strategy gave me a baseline for initial attitudes toward learning reading. Data collected after students were given direct explicit instruction and

time to internalize and master the given strategy was used to measure any change from the initial data collection. Students responded to prompts on a scale of 1-5, with an answer of 1 indicating strong disagreement to the prompt, 3 indicating a neutral response, and 5 indicating strong agreement to the prompt. Observational data was also recorded and considered, as I monitored observable student behaviors during independent reading. The results of the data collection and analysis will be presented in this chapter.

Description of Instructional Strategies

Previewing the Text

The first strategy that was explicitly taught to my students to aid metacognition and improve attitude toward learning about reading was previewing the text. Students were taught to examine the front and back cover, table of contents, and illustrations or photographs of an unfamiliar text. Working through this process prior to reading a new text helps prepare the student for reading and allows them to develop background knowledge about what's to come. Doing so can pique their interest in this new text, and potentially increase their motivation to read and engage with a text. Table 1.1 shows the initial survey results of student attitudes toward learnings reading prior to explicitly teaching students how to appropriately preview a text and why it can be a benefit to learners.

Table 1.1. Previewing the Text Pre-Instruction Survey Data

Student Number	Q1	Q2	Q3	Q4	Q5	Q6
1	4	5	3	3	N/A	5
2	3	5	5	5	N/A	3
3	5	4	3	2	N/A	5
4	5	5	5	5	N/A	5
5	5	3	4	5	5	5
6	4	5	3	3	N/A	3
7	4	4	3	2	N/A	2
9	4	5	4	5	4	5
10	4	5	4	4	N/A	3
11	3	3	3	5	3	3
12	3	5	5	3	N/A	3
13	5	4	3	3	N/A	5
14	3	5	3	3	N/A	3
15	4	3	3	3	N/A	5
16	4	3	5	2	4	4
17	3	4	5	5	N/A	5
18	3	4	3	4	N/A	5
19	5	5	5	5	N/A	5
21	3	5	3	3	N/A	3
22	4	4	5	4	N/A	4

Students responded to prompts on a scale of 1-5, with an answer of 1 indicating strong disagreement to the prompt, 3 indicating a neutral response, and 5 indicating strong agreement to the prompt. Survey question 5, "*This strategy / skill made me a better reader*", was answered "Not Applicable" - "*I haven't tried this strategy yet*" - by thirteen students because they had not yet attempted to implement this strategy yet. 80% of the surveyed population (16 of 20 students) replied N/A for survey question 5. The four students who did answer survey question 5 believed that they already had a firm understanding of this strategy and how it could help them and were already putting this strategy to use while independently reading prior to the explicit instruction on how and why to appropriately preview an unfamiliar text. Initial survey data shows that 53% of the recorded responses indicated agreement with the prompts, where student responses

were either 4 or 5, 30% of the recorded responses were neutral, and 3% of the recorded responses indicated disagreement, where student responses were either a 1 or 2 when the focus strategy was previewing the text.

Table 1.2 shows post-instruction data after providing explicit instruction on why and how to appropriately preview an unfamiliar text.

Table 1.2. Previewing the Text Post-Instruction Survey Data

Student Number	Q1	Q2	Q3	Q4	Q5	Q6
1						
2	3	3	3	3	2	2
3						
4	4	5	3	4	5	4
5	4	5	2	2	5	4
6	4	5	3	3	3	3
7	4	5	5	5	5	5
9	4	5	4	3	2	4
10	3	5	4	3	4	5
11	4	4	4	4	3	3
12	4	5	2	2	4	3
13	3	3	2	3	2	5
14						
15	4	4	5	3	4	4
16	2	3	2	1	2	3
17	3	5	3	3	4	3
18	3	2	3	4	3	2
19	5	4	5	5	5	4
21	3	4	3	3	3	4
22	4	4	4	5	5	5

Data from three students was unable to be collected due to scheduling conflicts (student absences, removal from classroom for pull out services, testing schedules, etc.). This decreased the total number of responses and data points collected from 120 in the pre-instruction survey to 102 in the post-instruction survey. The data shows 54% of student responses indicated agreement with the prompts, where student responses were

either 4 or 5, 31% of student responses recorded were neutral, and 15% of student responses indicated disagreement with the prompts, where student responses were either 1 or 2. In the post-instruction data survey, no students reported a response of "Not Applicable" to any of the prompts. Table 1.3 shows the change in responses from pre- and post- previewing the text instruction survey data.

Table 1.3. Previewing the Text Change in Pre- and Post-Instruction Data

Student Number	CQ1	CQ2	CQ3	CQ4	CQ5	CQ6
1	Didn't Complete Survey 2 ; change unknown					
2	0	-2	-2	-2	2	-1
3	Didn't Complete Survey 2 ; change unknown					
4	-1	0	-2	-1	5	-1
5	-1	2	-2	-3	0	-1
6	0	0	0	0	5	1
7	0	-1	2	3	5	3
9	0	0	0	-2	-2	-1
10	-1	0	0	-1	4	2
11	1	1	1	-1	0	0
12	1	0	-3	-1	4	0
13	-2	-1	-1	0	2	0
14	Didn't Complete Survey 2 ; change unknown					
15	0	1	2	0	4	-1
16	-2	0	-3	-1	-2	-1
17	0	1	-2	-2	4	-2
18	0	-2	0	0	3	-3
19	0	-1	-1	0	5	-1
21	0	-1	0	0	3	1
22	0	0	-1	1	5	1
Average Change	-0.294	-0.176	-0.706	-0.588	2.765	-0.235

Of the 17 students who participated in the post-instruction survey, 9 students (52.9% of participants) recorded a response that indicated agreement (an answer of 4 or 5) with this prompt, 4 students (23.6%) recorded a neutral response, and 4 students (23.6%) recorded a response that indicated disagreement (an answer of 1 or 2) with this prompt. It is likely that the change shown in survey question 5, with the prompt "*This*

strategy / skill made me a better reader", in Table 1.3 is because most students who participated in the initial survey (80%) recorded their response to this prompt as "Not Applicable" - "*I haven't tried this strategy yet"* as they had not yet been exposed to or attempted the target strategy, previewing an unknown text. After exposure and practice, the number of participants who recorded "Not Applicable" as their response to any prompt dropped to 0. 32.35% of recorded responses to prompts had a change of 0, meaning the response remained constant from the pre-instruction to post-instruction survey. 21.57% of recorded responses had a change of –1, and 13.53% of recorded responses had a change of –2. In total, 35.3% of responses changed from indicating agreement to indicating disagreement or less agreement than initially reported. 9.8% of recorded responses had a change of +1, 5.88% of recorded responses had a change of +2. Changes of +3 and +4 occurred in 3.92% of recorded responses each, and 4.9% of recorded responses had a change of +5. In total, 28.42% if responses changed from indicating disagreement to indicating agreement, or more agreement than initially reported. In the first round of surveys, when the target strategy was previewing an unknown text, the survey prompts "*I was looking forward to learning this new strategy / skill", " I understand how this strategy / skill will help me as a reader", "I am going to try this strategy / skill during my independent reading", "I am excited to use this strategy again when I read independently"*, and "*Knowing this strategy / skill makes me excited for future learning opportunities"* all had a slight negative change with an average change of less than –1 (ranging between –0.176 to –0.706). This tells us that students disagreed with these prompts slightly more after the explicit instruction around previewing a text was delivered and they had time to work with an internalize that

strategy. Survey question 5, *"This strategy / skill made me a better reader"*, shows a change of +2.765, a much more dramatic change over time. The only attitude that increased over time (experienced positive change) was reflected in survey question 5. All other survey questions reflected a minute negative change (less than –1). While students acknowledged that the explicit teaching of a metacognitive strategy improved their reading ability, survey data did not show an impact on their attitude toward learning reading or future learning opportunities.

Questioning the Text

The second strategy that was explicitly taught to students was Questioning. Students were taught explicitly and through modeling to ask question as they read to keep them thinking and engaged with the text. Because questions that we develop are unique to our experiences and schema, students needed a variety of examples of what this process looked and felt like. Samples of questions I ask as I read include "Why did (Character's or Author's name) do that?", "I don't understand...", "I wonder if..." and "What is/does... mean?". Students were taught that questions can be answered in the text by reading on. Students were also taught that they may need to infer the answer if it is not explicitly stated by the author. They were encouraged to bring their questions to peers through book clubs and to record questions and answers in a log or notebook.

Table 2.1. Questioning the Text Pre-Instructional Survey Data

Student Number	Q1	Q2	Q3	Q4	Q5	Q6
1	3	5	3	3	3	3
2	2	5	4	3	N/A	3
3						
4	5	5	5	5	N/A	5
5	5	3	4	5	5	5
6	4	5	4	3	N/A	4
7	4	4	3	2	N/A	2
9	3	5	4	5	4	5
10	4	5	4	4	N/A	3
11	3	3	3	5	3	3
12	3	5	5	3	N/A	3
13	5	4	3	3	N/A	5
14	3	5	3	3	N/A	3
15	4	3	3	3	N/A	5
16	4	3	5	2	N/A	4
17	2	4	5	5	4	5
18	3	4	3	4	N/A	5
19	5	5	5	5	N/A	5
21	3	5	3	3	3	3
22	4	4	5	4	N/A	4

There was one student who was unable to complete or submit their second pre-instruction strategy survey data due to scheduling conflicts. Like Table 1.1, this data shows a large portion of students (13 of 19 responses for this question, 68% of participating students) responding "Not Applicable" – "*I haven't tried this strategy yet"* to survey question 5, "*This strategy / skill made me a better reader"*. This did not come as a surprise, as the question prompts remained constant throughout the course of the data-collection period of the study, and they were being asked to evaluate a metacognitive strategy that they had not yet been explicitly taught. On this survey, taken prior to receiving explicit instruction around using questioning to enhance metacognition, 52% of recorded responses indicated agreement with the prompts (where students responded 4 or 5) 32% of responses were

neutral, and 4% of recorded responses indicated disagreement with the prompts (where students responded 1 or 2).

Table 2.2 shows post-instruction survey data after explicitly teaching students how to use questioning to improve metacognition and why it is important to do so.

Table 2.2. Questioning the Text Post-Instruction Survey Data

Student Number	Q1	Q2	Q3	Q4	Q5	Q6
1	3	5	4	3	5	4
2	3	4	4	4	4	2
3						
4	4	5	3	4	5	4
5	4	5	2	2	5	4
6	4	5	3	3	3	3
7	4	5	5	5	5	5
9	4	5	4	4	3	4
10	3	5	4	3	4	5
11						
12	4	5	2	2	4	3
13	3	5	4	3	3	5
14						
15	4	4	5	3	4	4
16	2	4	4	1	3	2
17	3	5	5	5	4	3
18	3	2	3	4	3	2
19	5	4	5	5	5	3
21	3	4	3	3	3	3
22	4	4	4	3	5	3

Again, due to scheduling conflicts, three students were unable to complete or submit their post-instructional survey. This decreased the number of valid data points from 114 in the pre-instruction survey to 102 in the post-instruction survey. The data in Table 2.2 show 60% of student recorded responses indicated agreement (where a student answered 4 or 5) with the prompts, 29% of recorded responses were neutral, and 10% of recorded student responses indicated disagreements (where a student answered 1 or 2).

The percentage of students who answered “Not Applicable” to survey question 5 decreased to 0. Table 2.3 shows the change in student responses from the questioning pre- and post-instruction surveys.

Table 2.3. Questioning the Text Change in Pre- and Post-Instruction Survey Data

Student Number	CQ1	CQ2	CQ3	CQ4	CQ5	CQ6
1	0	0	1	0	2	1
2	1	-1	0	1	4	-1
3	Didn't Complete Survey 2 ; change unknown					
4	-1	0	-2	-1	5	-1
5	-1	2	-2	-3	0	-1
6	0	0	-1	0	3	-1
7	0	1	2	3	5	3
9	1	0	0	-1	-1	1
10	-1	0	0	-1	4	2
11	Didn't Complete Survey 2 ; change unknown					
12	1	0	-3	-1	4	0
13	-2	-1	-1	0	3	0
14	Didn't Complete Survey 2 ; change unknown					
15	0	1	2	0	4	-1
16	-2	1	-1	-1	3	-2
17	1	1	0	0	0	-2
18	0	-2	0	0	3	-3
19	0	-1	0	0	5	-2
21	0	-1	0	0	0	0
22	0	0	-1	-1	5	-1
Average Change	-0.176	0	-0.352	-0.294	2.882	-0.471

As with the data from the pre- and post-instruction surveys around the first instructional strategy, three student response surveys were considered “invalid” due to missing either the pre- or post-instructional survey when the target strategy was questioning. Overall, 35.29% of recorded responses had a change of 0, meaning their answers did not change from the pre-instruction to post-instruction survey. 23.53% of reported scores had a change of –1, 7.84% of reported scores had a change of –2, and 2.94% of reported scores had a change of –3. In total, 34.31% of recorded student responses had a negative change, showing an increase in their answers indicating

disagreement, or more disagreement than initially reported, on the survey prompts. 11.76% of reported scores had a change of +1, 4.9% of student responses had a change of +2, 5.88% of reported scores had a change of +3, and 3.9% of reported scores had a change of +4 and +5 respectively. In all, 30.34% of recorded student responses had a positive change, showing an increase in their answers indicating agreement, or more agreement than initially reported on the survey prompts. Data from the survey questions "*I was looking forward to learning this new strategy / skill", "I understand how this strategy / skill will help me as a reader", "I am going to try this strategy / skill during my independent reading", "I am excited to use this strategy again when I read independently",* and "*Knowing this strategy / skill makes me excited for future learning opportunities"* all show miniscule negative change, each less than –0.5% change on average. This shows an incredibly small shift as the number of responses indicating disagreement increased ever so slightly from the initial questioning pre-instructional survey data to the post-instructional assessment data. Average change from the questioning pre-instruction survey to the post-instruction survey on question 5, was +2.882. This is quite a drastic change considering that the average change in the other survey questions was less than 0.5. The only attitude that increased over time (experienced positive change) was reflected in survey question 5, *"This strategy / skill made me a better reader"*. All other survey questions reflected a minute negative change (less than –1). While students acknowledged that the explicit teaching of a metacognitive strategy improved their reading ability, survey data did not show an impact on their attitude toward learning reading or future learning opportunities.

Summarizing the Text

The third and final strategy that was explicitly taught to students to enhance their metacognitive skills and increase their motivation and attitude towards reading was summarizing. Summarizing teaches students how to discern important ideas from a text, how to ignore things that are less important, and how to integrate central ideas of the story in meaningful ways. Students can summarize what they've read in a text prior to continuing to read, or after they have completed a text. Doing so helps aid in their general story comprehension and allows them to dig deeper when considering questions or prompts beyond the text. After direct instruction took place, students were invited to summarize their texts both orally and in written form.

Table 3.1. Summarizing the Text Pre-Instruction Survey Data

Student Number	Q1	Q2	Q3	Q4	Q5	Q6
1	3	4	3	3	N/A	3
2	2	5	4	2	N/A	2
3						
4	3	5	5	5	N/A	4
5	4	3	4	5	4	5
6	3	5	4	3	N/A	4
7	4	4	4	2	N/A	2
9	2	5	3	3	4	3
10	4	5	3	4	N/A	3
11	3	3	2	5	N/A	3
12	3	5	5	3	N/A	5
13	4	3	5	3	N/A	5
14	3	5	3	3	N/A	3
15	4	4	3	3	N/A	5
16	4	4	5	2	N/A	4
17	3	3	5	5	4	5
18	3	4	4	4	N/A	5
19	5	5	5	5	N/A	5
21	3	5	5	2	4	3
22	3	5	5	4	N/A	4

Table 3.1 shows data collected prior to explicitly teaching summarizing to my students. Like Table 2.1, one student was unable to complete or submit their initial survey for this

learning strategy. In line with data trends from Tables 1.1 and 2.1, Table 3.1 shows a significant percentage of students (78.9%, 15 of 19 participating students) choosing “Not Applicable” for their answer to survey question 5. I was expecting this to be the case, as this was the third and final strategy students would be exposed to through the course of the data-collection period, and this trend emerged after the first pre-instructional survey. On this survey, which was distributed prior to students receiving direct, explicit instruction about summarizing a text to enhance metacognition, 51% of student responses indicated agreement with the prompts (where students responded 4 or 5), 28% of student responses were neutral, and 8% of student responses indicated disagreement with the prompts (where students responded 1 or 2).

Table 3.2. Summarizing the Text Post-Instruction Survey Data

Student Number	Q1	Q2	Q3	Q4	Q5	Q6
1	3	5	3	3	5	4
2	3	4	4	4	4	2
3						
4	2	5	3	4	5	4
5	4	5	2	2	5	4
6	4	5	3	3	3	3
7	4	5	5	5	5	5
9	2	5	3	4	3	3
10	3	5	4	3	4	5
11						
12	4	5	2	2	4	3
13	3	5	4	3	3	5
14						
15	4	4	5	3	4	4
16	2	5	4	1	3	2
17	3	5	5	5	4	3
18	3	2	3	4	3	2
19	5	4	5	5	5	3
21	3	4	3	3	3	3
22	4	5	5	3	5	3

Again, the number of students available to participate decreased the data points from the initial summarizing survey from 114 to 102. The data in Table 3.2 show 55% of student responses indicated agreement with the prompts (where students responded 4 or 5), 32% of student responses were neutral, and 12% of student responses indicated disagreement with the prompts (where students responded 1 or 2). There were no students who indicated that the prompts were "Not Applicable" in the Summarizing Post-Instruction Survey. Table 3.3 shows the change in responses from pre- and post-previewing the text instruction survey data.

Table 3.3. Summarizing the Text Change in Pre- and Post-Instruction Survey Data

Student Number	CQ1	CQ2	CQ3	CQ4	CQ5	CQ6
1	0	1	0	0	5	1
2	1	-1	0	2	4	0
3	Didn't Complete Survey 2 ; change unknown					
4	-1	0	-2	-1	5	0
5	0	0	-1	-3	3	-1
6	1	0	-1	0	3	-1
7	0	1	1	3	5	3
9	0	0	0	1	-1	0
10	-1	0	1	-1	4	2
11	Didn't Complete Survey 2 ; change unknown					
12	1	0	-3	-1	4	-2
13	-1	2	-1	0	3	0
14	Didn't Complete Survey 2 ; change unknown					
15	0	0	2	0	4	-1
16	-2	1	-1	-1	3	-2
17	0	2	0	0	0	-2
18	0	-2	-1	0	3	-3
19	0	-1	0	0	5	-2
21	0	-1	-2	-1	-1	0
22	1	0	0	1	5	-1
Average Change	-1.94	0.118	-0.471	-0.059	3.176	-0.529

Again, three students were unable to complete or submit the post-instruction survey when the target strategy was summarizing, making their change in data unusable.

The change in data on survey question 2 was minute, at an average of +0.118. Change in survey questions 3, 4, and 6 was –0.471, -0.059, and –0.529 respectively. This is considered a slight change, in that each measured change was less than –0.6. Survey question one experienced a more noticeable change than in the other two surveys, with a change of –1.94. Additionally, survey question 5 had the biggest change of the entire study at +3.176 from the summarizing pre-instruction to post-instruction survey. Overall, 35.29% of student responses had a change of 0, indicating that their answers remained the same from the summarizing pre-instruction to post-instruction surveys. 32.35% of students recorded a negative change from the summarizing pre- to post-instruction survey indicating that they increased the amount of responses that disagreed with the prompts (or indicated disagreement more than they initially reported), with 21.57% of recorded answers showing a change of –1, 7.84% of recorded answers showing a change of –2, and 2.94% of recorded answers showing a change of -3. 32.34% of students recorded a positive change from the summarizing pre- to post-instruction survey, indicating that they increased the amount of responses that agreed with the prompts (or indicated agreement more than they initially reported), with 11.76% of recorded answers showing a change of +1, 4.9% of recorded answers showing a change of +2 and +5 respectively, 6.86% of recorded answers showing a change of +3, and 3.92% of recorded answers showing a change of +4.

Summary

Results obtained through pre- and post-target instruction surveys were presented in this chapter. Results were presented by target strategy, showing student survey responses prior to explicit instruction of a metacognitive strategy, and then responses to

the same survey after students received explicit instruction and were given time to practice and internalize the target strategy. Responses collected from each pre- and post-instructional strategy pair were compared, and change was recorded in a separate table. Any change that indicated agreement, or more agreement than had originally been recorded was noted as positive change. Any change that indicated disagreement, or more disagreement than had originally been recorded was noted as negative change. Instances where student responses were the same on the pre- and post-instructional strategy survey was noted as a change of 0. On the surveys, answers of 4 or 5 indicated agreement, answers of 1 or 2 indicated disagreement, and an answer of 3 was considered neutral.

Some student data had to be deemed invalid, thus limiting the participating population from 20 to 17 students. Due to scheduling conflicts and other unforeseen circumstances, not all 20 students were able to complete both the pre- and post-instructional strategy surveys for a given target strategy. Because change was unable to be observed, as one survey set was incomplete, this student data could not be used.

In all three instructional strategy pairings, the responses to the majority of the survey prompts showed minimal change from the pre- to post-instructional survey. For each situation, except when examining the change in survey question 1, *"I was looking forward to learning this new strategy / skill"*, when the target strategy was summarizing, all of these questions had an average change that was less than –1. On average, student responses to these questions changed by less than 1 response to the left, indicating more disagreement with those responses than initially recorded. These questions were "*I was looking forward to learning this new strategy / skill", "I understand how this strategy / skill will help me as a reader", "I am going to try this strategy / skill during independent*

reading", "I am excited to use this strategy again when I read independently", and "*Knowing this strategy / skill makes me excited for future learning opportunities"*. This slight change is not large enough to indicate a definite correlation between the explicit instruction of a target strategy and the change of student's attitude towards reading. In every comparison, the only question that showed positive change was question 5, "*This strategy / skill made me a better reader"*. This is likely due to the fact that most students answered survey question 5 as "N/A" in the pre-surveys, indicating they had not yet tried the skill, so they didn't know if they were a better reader yet because of it. Going from a response of "not applicable" to a positive response is a massive positive gain, essentially changing from 0 to whatever statement of agreement they made (for example, a change from "N/A" to 4 was recorded as +4). The data shows that for the majority of students, their attitude about their reading ability was positively impacted after the explicit strategies were taught.

CHAPTER V

CONCLUSION

For students to be successful readers, motivation is key. Igniting student motivation to read will open doors, leading to a wider variety of texts and a greater number of texts consumed and enjoyed. Many teachers have struggled to find what will motivate their students to actively engage in independent reading. The purpose of this study was to determine the impact of explicit teaching of metacognitive strategies on student attitudes toward learning experiences explicitly tied to reading. The study took place in a third-grade classroom of twenty participating students at a public school in Appleton, Wisconsin. Participants in the study were given surveys to express their attitudes and feelings toward reading and learning experiences around reading both before explicit instruction of a metacognitive strategy and after students had time to process, implement, and internalize the strategy after being taught. The question that guided this research was: *How does the explicit teaching of select metacognitive strategies impact 3rd grade student's attitude toward reading?* This chapter will review the methods used for conducting research and discuss limitations that should be considered when interpreting results of the study. An interpretation of the results gathered through data analysis will be discussed, and implications for future instruction and additional research will be considered.

Research and Methods

The study that was conducted followed a quasi-experimental design. It took place within my own third-grade classroom. Participants of the study were twenty third-grade students. The research period lasted thirteen weeks, during which data were collected and analyzed.

Prior to receiving instruction, students participated in a survey where they reported their feelings and attitudes toward reading and learning experiences around reading. Next, students were given direct explicit instruction around a metacognitive strategy. After students were given time to attempt the strategy, review the strategy in small groups or with partners, and practice independently, students participated in the survey a second time. Metacognitive strategies that were explicitly taught to students were previewing the text, questioning, and summarizing. Pre- and post-instructional surveys around the same target strategy were compared, examining the change in student responses from the pre- to post-survey. Student responses were coded to determine value and examine trends.

Responses were numbered, 5 representing strong agreement with the prompt, 4 representing agreement, 2 representing disagreement, 1 representing strong disagreement with the prompt, and 3 representing a neutral reaction to the prompt. The change in student responses was recorded numerically. If a student who initially recorded 2 as their response who later recorded a response as 4 for the same question, their change would be recorded as +2. Likewise, if a student who initially recorded 2 as their response who later recorded a response for 1 as the same question, their change would be recorded as –2.

Students who's answer remained the same from the pre- to the post-survey had a recorded change of 0.

At the conclusion of the study, the average change of student responses over the three pairings of pre- and post-instructional surveys was analyzed to determine the effect of explicit teaching of metacognitive strategies on student attitudes toward learning reading.

Limitations

Prior to interpreting the results obtained from data, it is essential to understand and acknowledge limitations of the study. The first limitation to consider is that the study relies heavily on the participating students answering each survey prompt openly and honestly. While the Informed Consent explicitly outlined there would be no impact on participants, positive or negative, on student progress reports due to the responses given on the survey. While I reminded them of this fact prior to completing each survey and encouraged them to provide a true representation of their feelings toward reading, primary students often want to appease their teachers, and I cannot guarantee that their responses were entirely truthful.

The second limitation is the issue of student attendance. It is not uncommon for students to have absences spattered throughout the school year due to illness, vacations, appointments, and various other reasons. In addition to absences from entire school days, students are also often pulled out of the classroom to receive additional supports from specialists, for school wide activities, and for assessment purposes. Three of my students

were regularly removed for my classroom. As a result, it was difficult for those participants to complete and submit all the required surveys.

The third limitation of the study is the small sample size. Initially, the study had been designed to be implemented across all sections of third grade at Houdini Elementary. Logistically it wasn't possible for this to occur. There was no guarantee that all students would receive the same type and quality of instruction, be given the same time to practice and internalize instructional strategies or have the same time to listen and respond to the survey prompts. Too many aspects of the research study would have been jeopardized by attempting to expand the student population of participants. Having a small sample size brings in to question the validity of the statistical data obtained, as we cannot determine implications on a larger scale.

Interpretation of the Results

The results of the study indicate that the direct explicit teaching of metacognitive strategies did not have a significant impact on student attitudes toward learning reading. Comparisons of each instructional strategies pair of pre- and post- survey responses was coded to aid in the interpretation of data. Data for survey questions 1, 2, 3, 4, and 6 changed on average by a margin of less than –0.5 in the data set obtained from the pre- and post-instructional surveys targeting previewing the text and questioning. This miniscule change rate remained constant for survey questions 2, 3, 4, and 6 on the pre- and post-survey targeting summarizing as well. Study participants as a whole did not report a significant change in their attitude toward reading after receiving direct explicit instruction on any of the given target strategies. Survey question 1 on the pre- and post-survey regarding summarizing did not follow this general pattern. For question 1 on this

survey, students reported an average change of –1.94 from the pre- to post-instruction survey. This shows that students reported a negative response toward the prompt "*I was looking forward to learning this new strategy / skill"*, indicating disagreement to this prompt after direct explicit instruction and time to practice and internalize summarizing a text.

Survey question 5, "*This strategy / skill made me a better reader"*, was the only question that demonstrated positive change over any of the pre- and post-instruction surveys. In fact, this prompt recorded positive average change over all three pairs of surveys, +2.765 when the target strategy was previewing the text, +2.882 when the target strategy was questioning, and +3.176 when the target strategy was summarizing. This positive change illustrates that students agreed more with this prompt after explicit instruction of all three strategies than they did prior to receiving this instruction. The data illustrates that the students believed that the learning these metacognitive strategies improved their skillset and made them better readers. This prompt, however, does not speak to student motivation toward learning reading. While explicit teaching of metacognitive strategies increased student belief in their reading ability, it did not have a significant impact on their attitude toward learning reading.

Implications for Student Learning

Students Need Explicit Instruction

Explicit instruction "refers to an instructional practice that carefully constructs interactions between students and their teacher" (Steedly et al, 2008). Teachers determine a learning target based on standards and curriculum and create meaningful learning

opportunities for their students. Direct, explicit instruction is comprised of clear and relevant explanations, modeling, and guided practice (Blair et al, 2009). While educators know that different lessons require tweaks of structure and resources, the heart of quality instruction demands these three components of explicit teaching. Modelling allows students to see the strategy implemented. In reading instruction, this is often done through interactive read aloud. Guided practice allows for students to work together to practice the target skill or strategy in a small group or with a partner. Explicit instruction can be implemented in a variety of settings, including whole group instruction, small group instruction, strategy groups, and in conferring. Data from the research study did not reveal a correlation between the explicit teaching provided and participant's attitude toward reading, but it did show that students felt their ability to read was improved after receiving explicit instruction.

Motivation is Key to Reading Success

As my students demonstrated to me, a reader must be motivated to engage with a text. While the ability and skillset to read is required, students with established abilities will not interact with a text if they do not feel motivated to do so. Motivation may be extrinsic, externally motivating, like receiving a prize for completing their reading log; or intrinsic, internally motivating, like the satisfactory feeling that washes over a person after they finish a new novel. While extrinsic motivation may work in the short-term, it often undermines students' long-term intrinsic motivation for learning (Deci, 1971; Kohn, 1993).

Research has proven three characteristics that are fundamental to developing and maintaining intrinsic motivation in students: autonomy, competence, and relatedness or

meaning (Ames, 1992; Dweck and Leggett, 1988; Kaplan et al, 2002; Deci et al, 2000). Autonomy is the need for a sense of control. Students need to feel that they have control in the learning work that is being done. When teachers limit student choice and involvement in learning opportunities, their engagement can decrease. The second component of intrinsic motivation, competence, pertains to a student's need to feel capable of tackling a learning challenge in the classroom. Students who do not feel competent will not develop intrinsic motivation. Lastly, students need to see the value in the work they are doing as it relates to their life, personal goals, and or interests. Meaning must be incorporated to learning opportunities to engage student motivation.

In my study, data showed that students' feelings of competence were increased, as there was a positive change in the survey question "*This strategy / skill made me a better reader"* over the course of all three instructional strategy pre- and post- survey pairs. However, I was unable to increase student feelings of autonomy and relatedness, as the focus of the study was the implementation of explicit teaching. Throughout the study, observational data showed students maintained a lack of engagement during independent reading throughout the data collecting period. While my students were competent readers, their lack of motivation to read hindered them from growing *more* as readers as the year progressed. Students who do not engage with texts will not experience growth as readers or thinkers. Students need to be motivated to read to continue to apply skills and strategies that they know to a variety of more complex texts.

Implications for Educators

Teachers Need to Teach Metacognitive Strategies

Metacognition; thinking about one's own thinking; is a key behavior for young students to develop. Teaching students to gain a deep understanding of their own thoughts and feelings will allow them to improve their learning (Price-Mitchell, 2015). Rae Jacobson, of the Child Mind Institute, explains metacognition this way:

> Instead of saying 'Test make me anxious,' we're asking ourselves, 'What is it about tests that makes me feel anxious and what can I do to change that?' Kids who are taught to think of themselves as being "good" or "bad" at a particular task can have a fixed mindset that makes them passive in approaching a challenge: either they can do it or they can't, but they aren't likely to think they can change that outcome. Teaching kids to become more metacognitive helps them move from a mindset that leaves little room for change to a mindset which promotes self-awareness and resilience.

This study showed that teaching metacognitive strategies increased student reading abilities. Participants felt more confident in their own skills after being exposed to explicit instruction around each of the targeted learning strategies; previewing the text, questioning, and summarizing.

Metacognitive thinking has benefits beyond work that students do academically. In addition to increasing reading comprehension, teaching students how to be reflective thinkers will also help them learn to self-regulate. These are life necessary life skills that should be fostered by educators from a young age.

Teachers Need to Allow Student Choice

Autonomy over one's work is an essential key to student's development of intrinsic motivation. Students need to have some sense of control over the work they do and the final products they create to demonstrate mastery of required skills and standards. Mike Andersen identifies two challenges that can be overcome by student choice; differentiation and apathy. By providing students with choice, or limited choice (where options were first identified by the teacher, and students then choose from the teacher's selections), students self-differentiate (Anderson, 2016). By providing students with choice, teachers also allow students to incorporate their skills, interests, curiosities, and passions into their learning, thus eliminating apathy. Student apathy was my key motivation for starting this research study to begin with. I was blessed with a brilliant group of students who didn't care about learning – a prime example of apathy in the classroom. By allowing choice and connecting students with interests, apathy can be eliminated, and intrinsic motivation can start to bloom (Anderson, 2016).

My study helped to increase student competence, one aspect of allowing students to develop and maintain intrinsic motivation. The explicit teaching of metacognitive strategies helped students grow in their reading abilities, and the surveys provided them an outlet to reflect on their learning. They identified positive feelings around the prompt "*This strategy / skill made me a better reader"*, indicating an increased belief in their own capabilities. Allowing choice would have incorporated both autonomy and meaning into student learning.

Implications for Future Research

Future Research Could Explore the Impact of the Three Components of Intrinsic Motivation on Independent Reading

Regardless of reading abilities or achievement, students must be actively engaged in a text while reading in order to continue to grow and learn. The aim of this study was to determine the impact of explicitly teaching metacognitive strategies on student's attitude toward learning reading. My study only considered one of the three components of intrinsic motivation – competence (Ames, 1992; Dweck and Leggett, 1988; Kaplan et al, 2002; Deci et al, 2000). To foster intrinsic motivation among students, the other two components must be incorporated; autonomy and meaning. By integrating autonomy, competence, and meaning into high quality reading instruction and learning opportunities, students involved in future studies could develop and maintain intrinsic motivation.

Future Research Could Follow a Group of Students as they Progress Through Grades

Student attitudes and ideas toward reading may change over time. While students in third-grade have grown and matured leaps and bounds from the beginning of their educational career as kindergarteners, they still have a lot of learning and growing to do. As students learn more about metacognition, and become more self-aware through aging, it's possible they could develop a more positive attitude about learning reading.

Future Research Could Extend the Data Collection Period

One of the limitations of this study was the issue of not having enough time with students. While there will always be scheduling conflicts in an elementary school, especially with students who receive additional supports and services, allowing more time in the data collection period would give more leeway for students who are absent or unable to complete both surveys. This may provide the researcher with more valid data points than I was able to collect.

Summary

The results of this study indicate that the direct explicit teaching of metacognitive strategies did not have a significant impact on student attitudes toward learning reading. Data obtained through the administration of surveys did not indicate a significant change in student attitudes after receiving explicit instruction on any of the three target strategies taught; previewing, questioning, and summarizing a text. Students participated in surveys that measured their attitude towards reading before learning a target strategy, and again after they had been given time to review, practice, and internalize the strategy. Strategies were taught initially through direct whole group instruction and re-taught through strategy groups and student conferences as needed. By mindfully choosing metacognitive strategies and allowing students time to internalize these strategies into skills, students increased their belief in their abilities as readers.

I strive to instill a life-long love of reading and learning in every one of my students; I believe it is part of my job as a reading teacher to do so. For these behaviors to develop, students need to have a positive attitude about reading. When students develop

and maintain an internal drive to positively and actively engage with a text, they will be fully capable of experiencing the joy that reading has to offer.

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APPENDIX A

INFORMED CONSENT FORM

Note to Parents and Families

Dear Families,

Today a form was sent home with your child, asking for you to consent to their participation in a research study that I will be conducting in our classroom this semester. As many of you know, I am currently taking graduate classes, working on earning my Master's in Reading and Reading Specialist License. A part of our program is conducting active research within a classroom setting.

Know that your child's participation is completely voluntary and will have no impact on their grade. The data collected for the study will be gathered only during school hours. Should your child participate, all information gathered will be kept confidential.

Please review, complete, and return the Informed Consent Form. If you have any other clarifying questions or concerns, do not hesitate to contact me at any time.

Thank you for your assistance and support

Kathryn Frazier
Houdini Elementary
(920)832-4608
frazierkathryn@aasd.k12.wi.us

Page Break

Informed Consent

Protocol Title: Effect of Metacognition on Students' Attitude Towards Learning

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University of Wisconsin, La Crosse

Purpose and Procedure

- The purpose of this study is to determine the effect of metacognitive strategies on students' attitude toward learning.
- My participation will involve honestly answering a series of questionnaires about how I feel before, during, and after various learning activities. Learning activities will be specific to Reading Instruction. I will also attempt to utilize metacognitive strategies that have been explicitly taught to me to the best of my ability while I am reading.
- The total time requirement is approximately 5 minutes a day, one day a week. The study will run from January 23, 2018 until May 15, 2018. No participation will be required outside of the school day.
- Participation will take place in our third-grade classroom at Houdini Elementary, Room 209.

Potential Risks

- The risk of serious or life-threatening complications is near zero.

Rights and Confidentiality

- My participation is voluntary. I can withdraw or refuse to answer any question without consequences at any time.
- I can withdraw from the study at any time for any reason, without penalty.
- Participation in this study will have no impact on my progress report.
- The result of this study may be published in scientific literature or presented at professional meetings using grouped data only.
- All information will be kept confidential through the use of number codes. My data will not be linked with personally identifiable information.

Possible Benefits

- I, and other students participating in the study, may benefit by understanding how the use of metacognitive strategies impacts my learning experience.

Questions regarding study procedures may be directed to the principal investigator, Ms. Kathryn Frazier (frazierkathryn@aasd.k12.wi.us or 920-832-4608) or the study advisor, Dr. Gary Willhite, Department of Educational Studies, University of Wisconsin – La Crosse (608-785-8130). Questions regarding the protection of human subjects may be addressed to the UW-La Crosse Institutional Review Board for the Protection of Human Subjects, (608)785-8124 or irb@uwlax.edu.

Participant's Name:

Parent / Guardian Signature: Date:

APPENDIX B

STUDENT SURVEY

Please consider the statements and record your honest response.

5 = Strongly Agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly Disagree

1. I was looking forward to learning this new strategy / skill.

5 4 3 2 1

2. I understand how this strategy / skill will help me as a reader.

5 4 3 2 1

3. I am going to try this strategy / skill during my independent reading.

5 4 3 2 1

4. I am excited to use this strategy again when I read independently.

5 4 3 2 1

5. This strategy / skill made me a better reader.

5 4 3 2 1

6. Knowing this strategy / skill makes me excited for future learning opportunities.

5 4 3 2 1