DEVELOPING SELF-REGULATED READERS

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Philip Lee James
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DEVELOPING SELF-REGULATED READERS

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Reading comprehension is essential for student success both in and out of school. My philosophy in education involves preparing students for success in and out of school. It is my belief that students who are able to take control of their own learning will have a higher opportunity to achieve this success. Instruction in self-regulated reading strategies is a method for achieving both of these elements of education. Research regarding direct instruction of self-regulated practices suggest that proper implementation of these practices have cognitive benefits in increasing reading comprehension. Models of self-regulation indicate that development of self-regulation is a cyclic process that includes: 1) Self-evaluation and monitoring, 2) Goal Setting and Strategic Planning, 3) Strategy implementation and monitoring, and 4) Strategic outcome monitoring. I used this model to implement goal setting as the catalyst for instruction in self-regulated reading comprehension strategies to a group of second grade readers who were struggling with reading comprehension.
My goal was twofold: 1) To provide students with a skill that could hopefully be beneficial for years to come 2) To potentially provide other educators with information documenting benefits for implementing these strategies into their own classrooms.

I began by teaching students the reading comprehension strategies of asking questions about text, making predictions and asking clarifying questions while reading. After students had practice using these strategies, I used goal setting to introduce self-regulated reading comprehension strategies into my instruction. Students made goals and monitored their progress as well as their use of these strategies on a weekly basis. The results of the study indicated that there could be a positive correlation between students’ use of self-regulated reading strategies and an increase in reading performance. All students that participated in the study showed an increase in motivation and participation during reading instruction. Most students also showed significant gains in average reading comprehension scores, book level, comprehension quiz pass rate, and/or average words read per week; however, not all students’ improvement was able to be directly linked to use of these self-regulated strategies.
CHAPTER I

INTRODUCTION TO THE STUDY

Thesis Overview

As our schools progress further into a standards based, test driven educational system reading comprehension is becoming more and more crucial for student success. Increasing pressure is being placed on students and educators to raise standardized test scores. Reading fluency is one element of success on these tests that accounts for students’ overall success. Students must not only learn to read fluently, they must learn how to comprehend and retain what they are reading. Learning self-regulated reading strategies designed to increase reading comprehension will give students an upper hand at taking control of their own learning.

My philosophy of education involves preparing students for success in and out of school. Part of this success is the hope that students will establish a love of learning that will continue outside the confines of the classroom. Reading comprehension plays an integral role in establishing student success and a love of learning. Teaching self-regulated strategies to increase reading comprehension will aid this philosophy by giving students skills to take control of their own learning and provide them with another tool to increase success and establish a personal love of learning. This research will document the effects of teaching self-regulated reading strategies to a student population deemed as fluent readers who are at the same time struggling with reading comprehension. The goal
of this research is to document trends related to student responses to these self-regulated strategies.

Background

The basis for this research stemmed from several curiosities that were generated through my student teaching experience at a rural elementary school in northern California. I was teaching in a second grade classroom consisting of twenty six students, most of whom were underprivileged and received free and reduced lunches. As a first year teacher who was struggling to find my own classroom management style, I began to think more and more about incorporating some of the self-regulated practices for behavior management that I had learned about during my undergraduate studies. I have always been an advocate for placing responsibility in the hands of the students. As my experience progressed and my classroom management skills improved, this became less and less of an issue. I began to focus more intently on my students’ individual strengths and weaknesses, attempting to find ways in which I might foster their individual educational needs. It was then that I started to notice a discrepancy with reading comprehension in our afternoon reading groups.

Our classroom was host to the top 38 readers across the second grade level. This placement was based solely on fluency tests given at the end of first grade with a follow up assessment at the beginning of second grade. These readers were deemed as ‘fluent’; however, I began to notice that a small majority of them were struggling severely with comprehension. I reminded myself that my philosophy of education included giving students responsibility for their own behavior and learning. With that in
mind, I decided to combine my two interests and investigate the effects of teaching self-regulated techniques to increase reading comprehension. Self-regulation, as it relates to this study, refers to “self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (Boekaerts, Pintrich, & Zeidner, 2005, p. 14). My thought was that this would serve two purposes. First and foremost, those students needing an improvement in reading comprehension would be addressed directly; secondly, these students will hopefully acquire the skill of self-regulating that will be useful in future learning and life experiences. The student population that prompted these inquiries resided in a rural school in northern California. The school itself hosted approximately 470 students ranging in grade levels from kindergarten through second grade. Seventy-six percent of the students were deemed as socioeconomically disadvantaged and seventy-four percent were classified as English Language learners. As I spent more and more time getting to know and working with these students, I found myself gaining an increasing sense of responsibility to provide the highest level of support possible for these students. The research presented in this thesis is a response to that obligation.

Statement of the Problem

With approximately forty percent of the grade level’s fluent readers struggling with reading comprehension, it is clear that further investigation of this problem was necessary. My mentor teacher and I had a discussion regarding this high percentage of struggling readers and came to the conclusion that the discrepancy was more than likely
not a coincidence. With all of her years of experience, this was the first time that she had witnessed such a high percentage of fluent readers with such low comprehension scores.

My research investigated “What are the effects of explicitly teaching self-regulated reading comprehension strategies to fluent readers who are struggling with reading comprehension?” The research involved direct instruction (as defined in definition of terms) of strategies specific to developing reading comprehension. Students were taught how to monitor their behavior and environment as well as asking internal questions before, during, and after reading.

The students chosen for this research were all within the top twenty percentile of second grade readers as indicated by their first grade exit reading scores and the STAR on-line reading test scores given at the beginning of second grade. They were chosen because at the time this study began they were considered ‘fluent’ readers and read with automaticity based on running records and fluency assessments. Tompkins (2009) states that there are three primary prerequisites for reading comprehension: background knowledge, vocabulary, and fluency. Since background knowledge and vocabulary vary for each individual student, fluency was the only measure for which all students could be pre-screened. The goal was to limit as many hindrances to reading comprehension as possible so that the effects of the self-regulated strategies that were taught could be more accurately identified.

These readers were given direct instruction of the self-regulated reading comprehension strategies; then progress was monitored through a continuous series of reading comprehension quizzes, student journaling, and my personal observations and professional notes and journaling. These elements were included as part of the data...
collection process along with recorded and/or documented student discussions after various reading sessions. The combination of comprehension quizzes, student journals, documented student responses to reading, and my personal journal entries and anecdotal notes provided a triangulation of data for validity and accuracy. The purpose of this study was to explore the relationship between self-regulated reading comprehension strategies and reading comprehension.

Purpose of the Study

The topic of reading comprehension is relevant in education because without comprehension, true learning cannot take place. Typically, once students become fluent readers (as are the students selected for this study), their comprehension becomes stronger (Tompkins, 2009). It is unclear as to whether these students who still lack comprehension skills have not yet developed the metacognitive abilities that reading comprehension often requires or if they are still using a large portion of their cognitive ability in order to read (Tompkins, 2009). Several studies performed throughout the years have indicated that reading comprehension has been a challenge for many educators (Hilden & Pressley 2007).

Hilden and Pressley (2007) note that these strategies are more typically found in adult readers and are uncommon for elementary and even many high school students. They state that these strategies can be taught to elementary students; however they require an extensive amount of time dedicated to instruction, modeling, and reinforcing. Since the inception of No Child Left Behind, time is a valuable commodity of which most teachers don’t have enough. This scenario could be contributing to the high volume
of low comprehension readers that our school is currently experiencing. One of the goals of this research is to not only increase reading comprehension among our readers, but to validate and encourage other educators that these strategies are worthwhile. As one Chico State reading professor, Rebecca Justeson, states, “If you aren’t comprehending, you aren’t reading” (personal communication, November 2011).

**Theoretical Bases and Organizations**

Self-regulation is a psychological term that has evolved over the years. Although the term had not yet been coined, its ideal can be found embedded in Vygotsky’s Cultural Historical Theory (Gredler, 2009). Vygotsky states that the problem of the cultural development of the child is the same as the problem of the higher mental functions (Gredler, 2009). That is, “the essence of cultural development . . . consists of man mastering processes of his own behavior” (Gredler, 2009, p. 2). This ideal eventually evolved into an area of psychological interest in the late 1970’s as the term “metacognition” began to circulate around the world of psychological theorists (Boekaerts, Pintrich & Zeidner, 2005). Metacognition simply refers to the internal process of an individual thinking about his/her thinking. This idea is the foundational concept behind self-regulation with which *The Handbook of Self Regulation* refers to as “self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (Boekaerts, 2005, p. 14). As it relates to self-regulated learning, students are taught how to think about and monitor their cognitive processes. It is at this point that students are able to take responsibility for their learning and true education can take place. My philosophy of education involves my personal beliefs that it
is my responsibility to provide my students with the tools that will provide success and life-long learning both inside and outside the confines of the classroom. I believe that the self-regulated reading comprehension strategies addressed in this research will help serve that goal. The purpose of this study is to provide instruction of self-regulated reading comprehension strategies to a group of second grade students; thus, demonstrating that self-regulation is possible with early stage learners.

Limitations of the Study

As a pre-credentialed teacher conducting this research, I was limited to designing the study around the parameters of my credential and graduate program. The sample size was limited to the students in my class that were deemed as ‘fluent’ or ‘at grade level’ readers. It was limited even further to only incorporate those students who were struggling in the area of reading comprehension. This lowered the sample size to approximately 10 to 15 students at any given time. Another limitation of the study was based on the age and developmental stage of the test subjects. The students being studied were averaged to be 7 years of age. The acquisition of self-regulation develops along four stages: modulation, control, self-control, and self-regulation (Boekaerts, Pintrich & Zeidner, 2005). Students at this age are still transitioning from the self-control stage to the self-regulation stage. The distinct difference is that self-regulation requires the use of introspection, consciousness and/or metacognition (Boekaerts, Pintrich, & Zeidner, 2005). Some students may not have fully reached this level, therefore, may have difficulty being able to state or recognize any strategies they might have used while reading with accuracy. Boekaerts, Pintrich, & Zeidner (2005) states that self-regulation in
the use of reflection and strategies involving introspection, consciousness, or metacognition begins to appear about the age of 3 or 4. This implies that students at the age of 7 have the developmental ability to self-regulate, however; they might not have fully reached the stage at which they are fully aware of their cognitive processes. The validity of this research weighed heavily on the accuracy of the student’s insights regarding their thought processes during reading. The final aspect that created limitations to this study was that of time. Due to the limited amount of time in a day to adequately teach all required subjects and content standards, our reading intervention groups were limited to 30 min. a day, four days a week. In addition to the daily time constraints, deadlines within this program only allowed me to collect data for four months consecutively. These limitations did allow, however, for an in-depth look at this research question. I worked extremely close with these students on a consistent basis allowing me to collect specific details regarding the students’ responses and progress towards the reading comprehension strategies taught to them.

Definition of Terms

Several concepts and terms are crucial towards the understanding of this study. Without an understanding or clearly stated definition of these terms, findings uncovered during this research could potentially be misconstrued. For the purpose of this research the listed terms will be defined as follows:

- Self-regulation: “Self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (Boekaerts, Pintrich, & Zeidner, 2005, p. 14).
• Self-regulated learning: “learning that occurs largely from the influence of students’ self-generated thoughts, feelings, strategies, and behaviors, which are oriented toward the attainment of goals” (Schunk & Zimmerman, 1998, p. vii).

• Reading comprehension: one’s level of understanding of text that is affected by both reader factors and text factors (Tompkins, 2009).

• Fluent Readers: Students who are able to read at grade level standards based on the school’s adopted curriculum fluency standards. This refers to the correct words per minute read, which currently at the time of this study was approximately fifty-five words per minute correct (Bear, 2007).

• Asking questions about the text: This strategy involved students’ periodically asking themselves questions about what they were reading. These questions ranged in cognitive level from fact based questions to interpretive questions that arose based on what they were reading.

• Reciprocal teaching: A teaching strategy in which a dialogue takes place between teachers and students regarding segments of text. The dialogue is structured around the comprehension strategies that are to be used and teachers and students take turns assuming the role of discussion leader (Palinscar & Brown, 1984).

• Direct Instruction: A teaching strategy that emphasizes appropriate practice progressions of motor skills through the use of teacher presentation, demonstration, abundant and focused student practice, and specific and congruent teacher feedback (Rikard & Boswell, 1993).
- Transactional strategies instruction: A constructivist model of instruction that involves teacher explanations and modeling of strategies only serving as a beginning point for student construction of knowledge (Schunk & Zimmerman, 1998)
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

As our schools progress through a standards based, standardized test driven educational system, reading comprehension is crucial to the success of the students and the schools. This has become especially relevant to the second grade level. Not only are many of these students still learning to read, but it is in this grade that they are first introduced to state standardized testing. This testing requires students to not only be able to read the passages, questions, etc., but to also comprehend what they mean and are being asked to do. This is difficult as many of these students are still transitioning from “learning to read” to “reading to learn.” Without this comprehension, it is virtually impossible for students to be successful. The implications for students performing poorly on these tests extend beyond individual student success into overall school success and will ultimately effect funding for that particular school.

As students enter second grade their reading proficiency is primarily based on fluency scores with less emphasis placed on comprehension. The Southwest Educational Development Laboratory (SEDL) (2000) performed an extensive study on reading instruction as part of their Reading Project. They noted that reading instruction should be a primary concern for K-2 teachers using research-based evidence indicating that if
students are still struggling with reading skills by the third grade, they will more than likely continue to struggle throughout their lives (Wren, 2000).

Other research studies have shown that the type of reading instruction will also affect reading comprehension. Smolkin and Donovan (2003) noted that:

Various comprehension-related skills, such as world knowledge, vocabulary growth, and text structural awareness, do not flourish during periods in which phonological awareness is the stressed instruction . . . These findings are important because they remind us that efficient word recognition seems to be a necessary but not sufficient condition for good comprehension. (p. 26)

These two studies had significant relevance to our student population since only 33.5% of our students scored proficient or above on last year’s English-Language Arts STAR test (California Department of Education, 2011). After the debate regarding whole language vs. phonics approaches to reading instruction was settled in favor of a balanced approach, educational scientists and psychologists have been developing views on the cognitive science behind successful reading competence (Wren & Southwest Educational Development Lab., 2000). Embedded into these views is the need for self-regulating strategies to be taught explicitly for successful reading comprehension. Explicit instruction of these strategies is required because internal regulation does not fully develop prior to adolescence (Gredler, 2009). These stages begin to develop in children around age 6, however are not fully developed until late adolescence (Gredler, 2009).

Self-Regulating Reading Strategies

Self-regulated learning has been a topic of discussion since the 1960’s. Much of the foundational ideals have evolved from Lev Vygotsky’s work, particularly the work he did in the 1930’s. As translations of his work began to be published in the 1960’s
developmental psychologists and educators began looking at aspects of his work in relation to educational development. One particular area of interest stemmed from his text *Thought and Speech* in which Vygotsky described “inner speech as a source of knowledge and self-control, and interactive dialogue between adults and children as a vehicle for conveying and internalizing linguistic skill” (Schunk, 2008, p. 26). This notion of “inner speech” is the catalyst for most self-regulating behaviors including the strategies used in this study such as: self correcting when the student gets distracted, consciously choosing an appropriate environment to read, recognizing and asking for help when the student does not understand what he/she is reading, and asking internal questions about the text; all of which was focused on in this research.

**The Studies**

Many researchers have investigated various aspects of self-regulated learning strategies as they relate to reading comprehension. Studies in this field became prevalent in the 1970’s and 1980’s when researchers hypothesized that individual reading strategies could be taught to students to increase reading comprehension (Schunk & Zimmerman, 1994). Among the strategies focused were: summarization, imagery (constructing images in the mind correlating to the text that was read), question generation (generating questions about the text prior to, during, and after reading), and text structure analysis (analyzing the setting, characters, problems, and resolutions in a story). Many of these strategies are still revered to be some of the most successful strategies used. In addition to these strategies, others have been added to the list and deemed equally successful. Those strategies include making predictions about the text, making connections to the text.
(i.e. text to self, text to text, text to world). The studies conducted on these reading comprehension strategies have shown a significant positive correlation with an increase in reading comprehension. All of these skills require the reader to internalize their thought process and focus on what is being read in order to be successful in these strategies; all of which will ultimately increase reading comprehension.

One study relevant to this research was conducted in 1984 by Palinscar and Brown (1984). Palinscar and Brown used reciprocal teaching to instruct four reading comprehension strategies involving expository text to struggling 7th grade readers. The strategies taught were: 1) prediction of upcoming content, 2) asking questions about text content when reading, 3) seeking clarification when confused about meaning, and 4) summarizing what has been read. Their research was split into two studies. The first study involved thirty-seven seventh grade students. Twenty-four of the students were deemed as adequate decoders; however; they poorly comprehended the material. The remaining thirteen students did not have any reading problems and were deemed as average readers in this study. They provided a baseline to the norm and comparative data for pre and post test results. The twenty-four struggling readers were split into two groups. One group focused on reciprocal teaching and the other focused on locating information (Palinscar & Brown, 1984, p. 125). These groups received separate instruction on reading comprehension strategies.

Both groups in the Palinscar & Brown (1984) study received the same content, only the interventions (form of instruction) varied. The “reciprocal teaching” group received instruction on how to summarize text, make predictions, and ask internal questions about the text. The “locating information” group received instruction on how to
locate information within a text. This group was more geared towards procedures involving demonstration and practice in test taking. To offer comparative results, Palinscar & Brown (1984) used the mean scores of the thirteen “average readers” to compare the final results of the test groups. The average readers scored 75% correct on the selections that they read. The students involved with the “reciprocal teaching group” improved from an average of below 40% correct to match the average readers’ score of 75% accuracy. The “locating information” group and the control groups did not show improvement in their scores (Palinscar & Brown, 1984). In addition to gains in the area of standardized reading comprehension test scores, members of the reciprocal teaching group also showed significant improvement in the evaluative processing of the text. The study showed that students ability to generate ‘main idea questions’ about the text increased from 54% to 70%. As well, the quality of summary questions improved by having incorrect or incomplete statements decreasing from 19% to 10% and detail summaries (summaries that involved irrelevant details) dropping from 29% to 4%. The improvement of the reciprocal reading group over all other groups was significant in all aspects of the testing and indicated a strong correlation between self-regulating reading strategies and reading comprehension (Palinscar & Brown, 1984).

Palinscar & Brown (1984) conducted a second study based on the success from the first study. This study mimicked the first study, however, instead of investigators acting as teachers for the research groups, they used real teachers and all of the instruction and student interaction took place in a traditional school setting using the same school site as the focus group. Similar results were shown through an overall increase in reading comprehension by the reciprocal reading group. The evaluative
processing of the text did not have quite as much gain as the first study, however, the increase was still significant by showing a decrease of 16% in incomplete or unclear questioning and an increase in main idea questioning from 57% to 70%. As well, main idea summaries rose from 68% to 85%. Similarly, the average standardized reading comprehension scores for this group rose from an average of 40% accuracy to between 70% and 80% (Palinscar & Brown, 1984). This second study is significant as it indicates that classroom teachers can be just as effective in increasing reading comprehension through the teaching and modeling of the desired strategies.

One important aspect of this particular study is that the researchers used four different self-regulating strategies in their study. This is important to note because many other studies have shown that introducing multiple reading comprehension strategies to elementary school children have proven to be less effective than introducing one strategy explicitly and extensively. In the book *Self-Regulation of Learning And Performance: Issues and Educational Applications*, Schunk and Zimmerman (1994) note that:

In addition to reciprocal teaching, there were other attempts to teach multiple comprehension strategies. Some, those involving teaching a large number of strategies quickly, failed to produce compelling evidence of gains. Others offering more intensive direct explanation and modeling of the coordinated use of fewer strategies were more successful in affecting comprehension and other aspects of reading. (p. 162)

The benefits of teaching individual reading strategies as opposed to multiple reading strategies became an area of interest for Educational Psychologists Michael Pressley and Rachel Brown. Pressley and Brown (1995) specialize in research on reading comprehension and strategies instruction. Michael Pressley is considered to be an authority in the field of cognitive reading strategies instruction (Brown et al., 1995).
Pressley’s previous work revealed that although single strategy instruction has demonstrated positive results in improving reading comprehension, it was rarely observed in students’ behavior (Schunk & Zimmerman, 1994). Their research (among others) indicates that skilled reading does not involve the use of individual reading strategies. They state that skilled readers use a wide variety of cognitive processes while reading which requires the use of multiple strategies, not just one (Brown et al., 1995). Following up on Palincsar and Brown’s (1984) research indicating that introducing multiple comprehension strategies can be effective, Brown and Pressley (1995) paired up with a research team with the National Reading Research Center to evaluate a program created by a mid-Atlantic school district that uses the theory of multiple-strategy instruction and self-regulation in their reading program.

The Students Achieving Independent Learning (SAIL) program is a program developed over the span of a decade by a mid-Atlantic school district designed to develop independent self-regulated readers in a suburban school with an increasing number of at risk students (Brown et al., 1995; Schuder, 1993). Teachers and administrators created this program in response to the lack of access their low achieving student population had to their district’s language arts curriculum (Schuder, 1993). The program was initially designed for first and second grade students who were deemed as at risk for reading failure. These students were taught key reading comprehension strategies that include: predicting upcoming events or information, generate questions and interpretations, visualize represented ideas, summarization, and a variety of other strategies. Students were also taught to adjust these strategies based on their purpose for reading. These
strategies are taught, modeled, and referenced explicitly throughout the entire school year and across content areas.

The National Reading Research Center’s Reading Research Report #33 (SAIL study) compared a homogeneous sample of second grade students in the same school district that was receiving conventional reading instruction to those that were receiving SAIL instruction (Brown et al., 1995). The researchers performed a variety of tests on both the conventional teachers and the SAIL teachers to ensure that similarities in teacher’s experience, teaching philosophy, etc. were comparable enough to not sway the outcome of the study.

The results of the year-long analysis were overwhelming in favor of the SAIL program. The students performed better on all standardized reading comprehension tests throughout the year and were able to participate in deeper more meaningful conversations about the text. For example, students that completed the SAIL program used interpretations of the text along with details from the passage during their conversations while members of the control group mainly re-stated details that came directly from within the story (Brown et al., 1995).

In summary, the students receiving the SAIL instruction outperformed the students that did not in all measurements of reading achievement with statistical significance. The authors go on to note that: “the study reported here is the strongest formal evidence to date that TSI improves the reading of elementary students” (Brown et al., 1995, p. 34). TSI refers to transactional strategies instruction which is the author’s descriptor of the instructional method used to teach self-regulated reading strategies.
Other studies have analyzed the effectiveness of specific reading comprehension strategies over others. One such study evaluated explicit self-regulated strategy development versus reciprocal questioning strategies (Mason, 2004). This study looked at thirty-two fifth grade students from two urban elementary schools who were struggling with reading comprehension. These students were equally divided into eight instructional groups each consisting of four students. Four groups received explicit self-regulated strategy instruction with the strategy of Think before reading, think While reading, think After reading (TWA). The remaining four groups received instruction using the reciprocal questioning strategy to increase reading comprehension. Both groups read the same combination of 15 passages consisting of eight science and seven social studies topics. Evaluation of reading comprehension improvement consisted of 11 measures: quality of an oral main idea statement, quality of an oral paragraph summary, oral retell (quality, number of information units, and number of main ideas), written retell (quality, number of information units, and number of main ideas), self-efficacy, intrinsic motivation, and social validity (Mason, 2004). Both groups were also given oral and written assessments prior to receiving instruction as a baseline for evaluating improvement. Both groups showed improvement in their overall reading comprehension, however, the TWA intervention proved to be more effective than the reciprocal questioning groups based on the five oral measurements. Mason noted that there were no significant differences found in the written retell response, self-efficacy, intrinsic motivation, or social validity.
Significance of Studies

All of these studies indicate a strong correlation with improvement of reading comprehension and the direct instruction of reading comprehension strategies. They suggest that instruction of these strategies can be effective at multiple grade levels. Self-regulated reading comprehension occurs when students begin consciously choosing when and how they will apply the comprehension strategies that have been taught. The SAIL study, among others, reminds us that this process should be taught, modeled, and referenced explicitly throughout the entire school year and across content areas. This requires consistent practice on the students’ part both in and out of school. Unfortunately, a majority of our school population falls into the ELL and low SES category. These students are not likely to practice these skills at home, where reading is less likely to take place (Heath, 1982).

The need for explicit instruction of these self-regulated reading strategies is extremely significant to note as Dolores Durkin (1978) and Pressley et al. (1998) report that almost no comprehension instruction was found in any of the elementary school classrooms that they observed. Durkin notes that reading comprehension was limited to assessment in which reading selections were given and students respond to teacher-generated questions or written assignments. She did not note any form of direct instruction for reading comprehension strategies. Pressley, et al. (1998) observed six fourth grade classrooms and four fifth grade classrooms over the course of one year. Pressley noted that there was a lack of instruction in reading comprehension strategy and little to no instruction in self-regulation. These findings were similar to what I observed during my student teaching experience. Teacher-directed question and answer
discussions, writing assignments, and standardized quizzes were the dominant method of addressing reading comprehension. Individual strategies had not been noted to be taught (at the time this research began) even though reading comprehension was addressed through assessment.

These studies show us that there is a direct need for specific reading comprehension strategies to be taught explicitly. More importantly they indicate that through direct instruction of reading comprehension strategies significant improvement is made in all cases. This was true regardless of grade-level, indicating that any age group can be responsive to this instruction.

Brown’s research (both with Palinscar and Pressley) indicated that the multiple strategies method was the most authentic to students and yielded the most positive results. This is not to say, however, that direct instruction of individual self-regulating reading strategies is irrelevant or unsuccessful. The important factor to consider in these studies is time. All studies, regardless of whether they are a multiple strategies approach or individual strategies, indicate that instruction must be direct and extensive. Both studies that were referenced in the preceding review, in which the multiple strategies approach was taken, were long-term studies in which the strategies were instructed, modeled, and referenced throughout the entire school year. Individual strategy approaches have also shown to provide positive results with less time allocated for direct instruction. This correlation was found in many studies presented here.
Conclusion

Direct instruction of reading comprehension strategies has proven to be effective in increasing reading comprehension skills for struggling readers. These strategies must be taught explicitly and thoroughly. Furthermore, the use of these strategies is effective across a range of grade levels. An important element to note in relation to the use of these strategies across grade levels is that all of these studies validate the finding that “the younger the students, the more instructional effort was required for the students to understand individual strategies and how to coordinate use of strategies” (Schunk & Zimmerman, 1998, pp. 45-46).

This study intends to continue the research of teaching self-regulated reading strategies to students explicitly as they relate to increasing reading comprehension. However, this study will focus on a short term, intensive program that will take a detailed look at a small group of students. Furthermore, the research presented in this literature review has been predominantly focused towards “struggling readers” (i.e. those readers that perform below grade level in all aspects of reading including decoding, fluency, and comprehension). This study will investigate the effects that these strategies will have on students that are only struggling in the area of reading comprehension.

The research presented in this thesis took the factors of age of the subjects, instructional method, and time into consideration while designing the experiment. Those factors which most affected the design of this study were the age of the subjects and the time allotted for research. Since the subjects involved with this research were in second grade and only an approximate timeline of four months was allotted to conduct research, the investigation was limited to direct instruction of three comprehension strategies:
predicting, asking questions about the text, and asking for help when they don’t understand what they read. These strategies were taught prior to teaching the self-regulated strategies of monitoring their reading environment and progress.
CHAPTER III
METHODOLOGY

Introduction

While choosing a topic to perform this research, I felt it was my obligation as a teacher-researcher to identify areas in which the majority of students in the class would benefit. Being able to identify and address this need would serve two purposes. First and foremost, students would be receiving additional instruction to a specific area of need. Secondly, I would be able to assess my ability as an educator to identify and address these needs in my students. As a teacher-researcher I felt it was important to monitor my own teaching practice as I began to identify and address the needs of my students. The first step was to identify these needs. The first couple of months were spent getting to know my students academically, socially, and developmentally. I was looking for trends in both what the majority of my students could do as well as what they could not do, then comparing that to what they should be able to do. The first trend that I noticed involved reading fluency. The class seemed to be split in half between those students that could read and those students that could not read. Shortly after that, I began to realize that the commonality between these two groups was that most students in both groups were struggling with reading comprehension. Even students that could decode and read fluently had a hard time understanding what they read. Once I identified the area of research, it was important for me to design the study around the needs of the students and
stay true to my beliefs of education and teaching philosophy. A major aspect of those beliefs and philosophies is that it is my responsibility to help students become self-sustained learners. This is why I chose self-regulation as the guiding factor of my research.

Design of the Study

This research was designed to document the effects that teaching self-regulated reading strategies would have on students’ reading comprehension. As I began to research what it meant to teach students self-regulatory behavior, a consistent theme kept occurring. That theme was that self-regulated learning is a cyclic process as is the teaching of self-regulatory methods (Zimmerman, Bonner, & Kovach, 1996). I knew that I would need to consistently monitor and assess my students’ progress and make adjustments to my methods based on changing conditions (Zimmerman, Bonner, & Kovach, 1996). This prompted me to look at grounded theory using a qualitative methods approach, since observation would be an essential element of documenting students’ use of self-regulating practices. Upon investigating proper and appropriate methods for using qualitative data analysis for this particular research, it became evident that an element of triangulation in both data collection as well as data analysis needed to be present in the research design (Leech & Onwuegbuzie, 2008). After a week of deliberation and further research in both qualitative data analysis and development of self-regulated readers, I decided on the following elements for data collection: observations, student records, video and conversations. Observations of students’ use of self-regulating behavior were documented through a running record of anecdotal notes, daily journals and various
videotaped lessons. Student conversations were documented in a similar fashion, but included students’ self-evaluations on self-regulatory practices based on these conversations. Finally, student records, including goal-setting sheets and computerized reading comprehension quizzes were analyzed for indications of potential changes in reading comprehension. Student conversations were also analyzed using discourse analysis by making connections between the students use of self-regulation and reading comprehension. Anecdotal notes were then coded to document the use of self-regulated strategies by the students as well as the students reading comprehension skills. The students’ running records of reading comprehension quizzes were also used to document the students’ reading comprehension. Other forms of data collection included tally sheets that documented the forms and amounts of self-regulatory behaviors that were observed both at home and at school. These tally sheets were also used to correlate the students’ use of self regulation to their reading comprehension.

Student Population

It was important to take into account all other factors that may affect reading comprehension while choosing an appropriate student population to use for this study. Since there are many factors that influence a student’s ability to comprehend text, I wanted to choose a student population that had as few of these limitations as possible. Thompkins (2009) states that background knowledge, fluency, and vocabulary are all prerequisites for reading comprehension. In order for me to effectively monitor the effects on reading comprehension, I felt it was necessary to hand select a group of students that were not lacking in the prerequisite areas of comprehension. Therefore, I
used running records and our curriculum theme tests to select a group of twelve students that had adequate reading fluency and vocabulary based on grade level standards. Background knowledge was difficult to take into account since each student’s background knowledge will vary from text to text. Vocabulary is a factor of background knowledge since students that do not know many words related to a topic do not have adequate background knowledge either (Tompkins, 2009). With this in consideration, I used students’ fluency scores as the primary determining factor when selecting students for this study. I wanted to ensure that there were as few factors as possible that would deter students from learning and applying the self-regulating strategies that were being taught to increase reading comprehension. Twelve students were originally selected; however, one student had difficulty keeping up with the group and was removed from the study and placed with a more appropriate reading group as a result.

The students that were originally selected for this study were all able to read with grade level fluency and were among the top twelve performers on all of the language arts themed tests. These two things indicated that there would be fewer factors that would hinder the students’ ability to comprehend text. This was important to me because I wanted to be able to focus on teaching self-regulation strategies to students without worrying about other factors that would prevent them from comprehending text. I felt it necessary to be able to document the students’ use of the self-regulatory reading comprehension strategies that were taught as they relate to changes in students’ reading comprehension abilities as opposed to potential changes that could otherwise be related to an increase in reading fluency or vocabulary as the students progressed through the year. I believed that focusing on students that already had strong language arts skills would
give me a stronger correlation between the strategies that were taught and the changes in students reading comprehension.

Another important thing to note about the students that were selected for this action research is that even though these students were able to read with grade level fluency, only two of them were consistently successful in reading comprehension at the time this study was started. This indicated a need in supplemental reading comprehension, which is why I chose this topic as the foundation for my action research.

Success in reading comprehension was based on three forms of reading comprehension assessments at the time this action research began. I looked at the school’s adopted curriculum (Houghton Mifflin) theme tests, reading comprehension scores that had been taken using Renaissance Place Accelerated Reader (AR), and the reading comprehension portion of the students’ running records using a leveled book series. These initial assessments provided an average baseline of student performance prior to initiating the interventions.

Out of the twelve students that were qualified as participants for this research, four of them were English language learners. This is important to note, because even though they qualified to be included in the study by having adequate reading fluency scores and success on all of the language arts theme tests, they may still have had other language deficiencies that could affect their reading comprehension. This required me to carefully monitor these students’ progress and provide additional support with vocabulary or other language needs as necessary to ensure that these factors did not hinder the effects of the self-regulated strategies that were taught to increase reading comprehension.
These particular students were pulled from an overall student population of 480 students in a Rural K-2 Elementary School in Northern, California. The school’s specific demographics are 59% Hispanic or Latino, 35% White, 4% Asian, approximately 1% American Indian or Alaska Native, and approximately 1% Black or African American. Within that student population, 84% of the students are socioeconomically disadvantaged, 48% are English Language Learners, and 8% are students with disabilities (School Website 2011).

Treatment/Data Collection

Instruction

My mentor teacher and I discussed various methods in which my research could fit into our daily curriculum instruction while suiting the needs of our students. It was clear that this research would need to take place during our Language Arts instruction, which at the time was primarily being taught using whole class instruction with some segments of small group instruction. As we evaluated our students’ needs more closely, we found benefits in restructuring our Language Arts instruction into stations using a rotational teaching model. This model would allow each of us to differentiate instruction to a group’s specific needs. Due to the diversity of reading abilities within our classroom, the students were divided into four groups: Gold, Lime, Plum, and Aqua. These groups were primarily based on reading fluency scores using running records. My mentor teacher took responsibility for the Gold and Lime groups (these were the two groups with the lowest reading fluency) and I took responsibility for Plum and Aqua (these were the two groups that had grade level or above reading
fluency). My mentor teacher designed and focused instruction on fluency skills while I focused on reading comprehension. Twice a week the Language Arts curriculum was taught whole class allotting for direct instruction of skills that would suit the needs of the entire class such as syllabification, nouns, verbs, sentence structure, etc. The remainder of the week was spent teaching our Language Arts instruction in stations. Our class’ Language Arts instruction entailed a one and a half hour time block in the morning and a half hour of school wide reading interventions in the afternoon. The first thirty minutes were typically spent as whole class instruction involving a range of activities that included spelling review, sentence structure, homework correction, or any other Language Arts review that would benefit the whole class. After that, the class transitioned into three rotations: 1) thirty minutes with either me or my mentor teacher, 2) thirty minutes of independent work which included a variety of supplemental work that correlated with that week’s themed story or language focus, and 3) independent reading.

In my group lessons, I used a combination of reading selections that varied from our school’s adopted basal reading program (Houghton Mifflin) to other fiction and non-fiction books to teach and model reading comprehension, writing conventions, writing strategies, and word analysis.

While designing the interventions for my reading groups in preparation for this action research, I was constantly reminded of the research I had reviewed regarding instruction in reading comprehension and self-regulation. I knew that self-regulation was a cyclic process that included 1) self-evaluation and monitoring, 2) goal setting and strategic planning, 3) strategy implementation and monitoring, and 4) strategic outcome monitoring (Zimmerman, Bonner, & Kovach, 1996). This is why I chose goal setting as
the catalyst for introducing self-regulation to my students. The process of goal setting provided a structured opportunity to self-evaluate their performance before, during and after setting their goals. I also knew that in order for students to be able to self-regulate the use of reading comprehension strategies, they must first be taught those strategies (Souvignier, 2006). The most critical piece to deciding on what comprehension strategies I should focus on for my interventions came from Brown and Pressley’s (1994) research stating that teaching a large number of strategies quickly was proven to be ineffective. Other research indicated that fluent use of reading comprehension strategies are not fully developed until after a full year or two of practice (Brown et al., 1995; Souvignier, 2006). Since my time was limited to approximately three months of instructional time, while knowing that students needed a variety of strategies from which to choose, I decided to only focus on three reading comprehension strategies using the reciprocal teaching method that was referenced in Palinscar and Brown’s research (1984).

**Reading Comprehension Strategies**

I used Palincsar and Brown’s (1985) research on reciprocal teaching of comprehension strategies as the foundation for my reading comprehension instruction. Emulating their research that concluded that good readers use a variety of reading strategies while reading, I chose to focus on direct instruction and modeling of three reading comprehension strategies: prediction of upcoming text, seeking clarification when confused about meaning, and asking questions about text content. In their study, Palincsar and Brown (1985) taught the same strategies to a select group of struggling readers over a two-month period using reciprocal teaching strategies and showed positive results. Due to time constraints, I was not able to focus instruction on these reading
strategies for two months. I was only able to allot one month for this portion of my research topic, therefore, I chose to focus on one strategy per week for that month. Each strategy was taught explicitly with demonstrations and modeling of the strategy by myself prior to the students practicing and using the strategy on their own. At the end of each week, I facilitated a discussion with each group about how these strategies will help them become better readers. In addition to the explicit instruction of these reading comprehension strategies, consistent modeling and review of these strategies was implemented across content areas through the duration of the school year.

**Self-Regulation**

After students had been taught the three reading comprehension strategies, I began instruction on self-regulatory behaviors. In the book Developing *Self-Regulated Learners* (Zimmerman, Bonner, & Kovach, 1996), six key instructional capabilities are listed for introducing self-regulated learning into the classroom: 1) demonstrating use of various self-regulated learning techniques, 2) demonstrating the effectiveness of self-regulatory techniques in ways that students will understand and accept, 3) keeping records of students progress, 4) anticipating students’ questions regarding self-regulated learning, 5) planning the integration of self-regulated processes within the curriculum, and 6) refining their own planning and teaching methods in light of their experience with self-regulation training. There are four components of the self-regulatory model: 1) self-evaluation and monitoring, 2) goal setting and strategic planning, 3) strategy implementation and monitoring, and 4) strategic outcome monitoring (Zimmerman, Bonner, & Kovach, 1996). With these key elements of self-regulation in mind, I chose goal setting as the catalyst to launch my instruction into self-regulatory behavior. I began
the lesson by introducing the concept of self-regulation using vocabulary that a second grader would understand, such as ‘thinking out loud’ or ‘knowing when something is not working and doing something different to try and fix the problem.’ I listed a series of behaviors that would be beneficial for them to become better readers. Those behaviors included: choosing a quiet place to read, asking for help when they don’t understand what they read, moving to another location if someone or something starts to distract them where they are reading, asking questions aloud, using dictionaries to find words they don’t know, and applying the reading comprehension strategies that were taught in our group sessions. These traits were discussed in details with examples provided for each. These traits were reviewed on a consistent basis and students were asked to provide examples of each one on a routine basis.

After the self-regulatory traits were taught, I reviewed each student’s reading averages and introduced goal setting using a S.M.A.R.T. (Specific, Measurable, Actions, Realistic, Timely) goal model (Day & Tosey, 2011). I gave a mini-lesson to each group and discussed what it meant to set goals and what a good goal was based on the criteria for the S.M.A.R.T. goal model. This model consisted of students creating goals that were specific, measurable, with a plan of action, realistic to meet, and a time frame in which the goal should be met.

Another important aspect to note when introducing students to self-regulating practices is motivation. Souvignier and Mokhlesgerami (2006) state that “students need motivational aids to initiate and maintain these unfamiliar and challenging learning activities” (p. 60). To account for this element in the process of developing self-regulated
readers, I gave each student that met their reading goal each week their choice from a prize box that consisted of miscellaneous pencils and erasers.

Students began by self evaluating their reading performance as I reviewed their reading reports from AR (component 1 of the self-regulatory cycle). After the students assessed their progress we discussed what a good goal would be for them to become better readers (component 2). I helped guide students with this process for the first couple of times until they were able to set their own goals independently. Students used a weekly goal setting sheet (see Appendix A) to help them plan and strategize their success (component three). After the goals were set, we reviewed their progress the following week and assessed whether or not they made it. Students evaluated what they did to help them reach their goals or what they could have done if they did not reach them (component 4). They noted what they did well, and what was difficult for them. Students’ self evaluation was primarily done in an interview format so that they would not be hindered by the writing process and they could express their thoughts more accurately. This process was repeated on a weekly basis for four weeks.

As this process was occurring, students were taking home a self-regulation log that allowed parents to document anytime one of the traits was being displayed at home. Parents were informed of each trait and directed how to use the form through a written letter and directions that were sent home with their student (Appendix B). A similar log was kept in the classroom that allowed my mentor teacher and I to document anytime we identified self-regulatory behavior being displayed by one of the target students (Appendix C). I also kept anecdotal notes of all Language Arts lessons and reading sessions.
Data Analysis

Various forms of data collection were necessary in order to provide an accurate correlation between the students’ use of the self-regulated reading strategies and their reading comprehension. This required the use of a combination approach to data analysis. A mixture of qualitative and quantitative data was collected; therefore, my research required a combination of qualitative and quantitative data analysis. Qualitative data was collected through anecdotal notes, student interviews, daily journal entries, and videotaped lessons. Quantitative data was collected through students’ performance on standardized comprehension assessments.

Observations

Originally, I began by keeping a daily journal of the observations that I had made during the course of each day’s Language Arts activities. After a week or two of maintaining this journal at the end of the day, I realized that I was not able to provide enough details for effective data. My entries lacked the specific examples and student responses that had occurred throughout the day. I decided to carry a notebook and take anecdotal notes of student responses or behaviors that indicated either reading comprehension or the use of the comprehension and/or self-regulatory strategies that were taught. I found that this helped to provide more details of instances that I observed, however, I was afraid that there might be things that I was missing. Due to the developmental stage of my students, I knew that the validity of my research relied heavily on documenting the students’ use of these strategies since most of them would have difficulty recognizing their own use much less expressing it. As a result of these
fears, I set up a video camera and recorded all Language Arts lessons for the remainder of the study.

The daily journal of Language Arts instruction included detailed descriptions of the lessons taught, activities conducted and student participation. I tried to pay close attention to each student’s comments and participation in the lesson as well as their behaviors during the lesson. As I was documenting these lessons in my journal, I was not sure exactly what information would be revealed, so I tried to be as detailed and thorough as possible. I knew that I would ultimately be looking for a correlation between self-regulation and reading comprehension so I paid close attention to noting any comments or behaviors that reflected either of those elements. Similarly while taking anecdotal notes, I focused on behaviors that reflected reading comprehension, such as application of strategies, comments that were made about reading selections that would indicate any form of understanding. I also noted any self-regulatory behaviors that were being used by the students in both the anecdotal notes and the daily reflection log.

At the end of my data collection period these daily journals, anecdotal notes and transcribed sections of relevant video were coded based on re-occurring themes and behaviors using constant comparison analysis (Leech & Onwuegbuzie, 2008). This is often used with grounded theory design; however, Leech & Onwuegbuzie (2008) argue that it can be used with any narrative or textual data. It involves coding to generate a theory or set of themes. There are three stages to constant comparison analysis: 1) open coding where the analyst breaks the data into smaller segments and attaches a descriptor to the segment, 2) axial coding involves grouping the codes into similar categories, and 3)
selective coding which is the stage that the researcher can “create theory out of data” (Leech & Onwuegbuzie, 2008, p. 594).

I began my data analysis by reviewing the video recordings of my Language Arts activities and adding new details to my journal entries. After my entries were complete, I began reviewing them for common themes. I reviewed my notes at least ten times, looking for a new theme each time. I found seven themes that were consistent throughout my observations: struggles with inferential comprehension, attitudes toward reading, selective book choice, asking clarifying questions, making connections to the text, making predictions about the text, and student responses towards meeting their goal. I used seven different highlighter colors and coded each instance appropriately throughout my notes.

**Self Regulation Logs**

I created a weekly log that students took home along with their reading logs so that any self-regulatory behaviors could be documented outside of the classroom (Appendix A). This log consisted of five self regulatory traits that were taught in class: 1) I chose a place at home to read that will help me concentrate 2) I asked for help when I didn’t understand what I read 3) I moved to a different place in the house when it got too noisy 4) I asked questions about the text while reading (who, what, where, when, why), 5) I made guesses about what will happen in the story. Parents received a letter identifying all of these traits along with instructions on how to maintain the log with the help of their student. Parents initialed and dated the appropriate behavior anytime that it was observed or validated from their student. A similar log was kept in the classroom with areas to document any other traits observed by my mentor teacher or myself.
(Appendix C). The purpose of these logs was to document the types of self-regulation and the amounts that each student was using them. These logs were also coded using classical content analysis (Leech & Onwuegbuzie, 2008). This form of data analysis involves counting the frequency or use of pre-determined codes. In the case of this study, those codes were the self-regulated traits listed on the self-regulation log. A frequency distribution was used for each student to indicate which traits (if any) were being used and how often. It is important to note that not all self-regulation logs that were sent home could be used for evaluation. Many of the logs were not turned back and some of them were deemed as invalid. Those logs that were deemed as invalid were turned back with every box initialed, which did not correlate with observations or prior knowledge of the student.

Reading Comprehension

Students’ performances in reading comprehension were collected in various forms. Running records were kept on all students using a leveled series of books throughout the school year. The reading comprehension scores from these running records were used in conjunction with the reading comprehension section of the curriculum theme tests, district performance assessments, and reading comprehension quizzes taken through AR reading.

In addition to these areas of reading comprehension, I made observations during Language Arts lessons, reading groups, etc. and noted any instances that indicated students’ comprehension of text. These instances were also noted and tallied while coding the daily journals, anecdotal notes, and videos. I used the curriculum themed tests, running records, and AR quiz scores to provide a baseline average for each student prior
to initiating interventions. At the end of the interventions I evaluated the progress each student made in reading comprehension by comparing all reading comprehension assessments given after the interventions began to their baseline data. Gains or trends in each student's reading performance were then cross referenced to data collected during observations and through their self-regulation logs.

**Weekly Interviews**

I conducted interviews with the students each week to review the progress of their goals from the previous week. During these interviews I asked whether or not students made their goals and prompted them to reflect on their own performance. If students made their goal, I asked them how they did it. I also asked students to think about things that they did well that week and things that they had a hard time with. These questions were designed to provide students with an opportunity to express their use of the self-regulated strategies. Any indication of students using these strategies in a self-regulated manner were tallied and included with the data collected from each student's self-regulation log.
CHAPTER IV

FINDINGS AND RESULTS

Results from Analysis

As I began to analyze my data, I reviewed the purpose of my research question: “What are the effects of teaching self-regulated reading comprehension strategies to fluent readers who are struggling with reading comprehension?” This question required the use of both qualitative and quantitative data collection and analysis. Due to the age of the students, their developmental stage made it difficult to recognize or express their own use of self-regulatory behaviors. Students at this age are still transitioning from the self-control stage to the self-regulation stage (Boekaerts, Pintrich, & Zeidner, 2005). Boekaerts, Pintrich, & Zeidner (2005) states that “development of self-regulation seems to follow the development of both processing potentials and working hyper-cognition” (p. 239). Since neither self-regulation nor hyper-cognition is fully developed at this stage, students might have difficulty expressing their use of self-regulation. This prompted me to incorporate qualitative data collection methods that included observations and student interviews in order to track the students’ use of self-regulation. Since the nature of my research question was looking for a correlation between students’ use of self-regulated reading strategies and reading comprehension, it was important to incorporate quantitative data collection through reading comprehension scores.
One benefit of using qualitative research analysis is that it allows for themes and theories to emerge from the data instead of relying on the data to confirm or deny a claim. My initial reaction was to begin reviewing the data that I had collected and look specifically for increases made in reading comprehension. As I began coding my journal entries and notes using constant comparative analysis (Leech & Onwuegbuzie, 2008), I began to notice other themes not related to comprehension such as: changes in students’ attitudes towards reading, students engagement in reading group, and students’ choice in book selection to match their ability and/or challenge themselves. I also noticed an emerging theme for some of the students regarding consistent struggles with inferential comprehension. I realized that my initial reaction was wrong and that I needed to look closely for all correlations to reading comprehension, not just gains. Qualitative data analysis provided options for me to do that by looking at my data from several perspectives, which allowed for multiple themes to emerge. After I coded the notes from my various forms of observations, I noticed three main themes: students’ use of self-regulation, students’ motivation and attitude towards reading, and students’ reading comprehension.

**Discussion of the Findings**

**Motivation and Attitude Toward Reading**

The very first and most obvious thing that I noticed after I initiated the self-regulated reading strategies was that students became excited about our reading time. Student Number 3, for example, changed his attitude entirely. Some examples of statements made by this student towards the beginning of interventions included: “Thank
God” when our reading time ended, or “Do we have to?” when getting ready to read. After only a week or two, this student was noted to make comments such as: “I really liked that book, can I read another one like it?” As well, he became enthusiastic about meeting his goals and seemed happier in reading groups. This seemed to be unanimous among my reading groups. The students seemed to transition from believing reading was something they had to do into something they got to do. On multiple mornings, students from my groups would ask excitedly if we were going to read more from their books that day, and often approached myself or my mentor teacher about their progress on their reading goals. These attitudes were documented in my daily journal notes, anecdotal notes, and conversations with students during our weekly goal meetings.

After the second week of interventions when I started having weekly interviews with the students to go over their goals for the week was when students’ excitement and participation really started to be noticed. As I reviewed the student goal sheets and my observation notes, it was evident that students became much more engaged and excited about reading as the interventions progressed. An entry made in my anecdotal notes towards the beginning of my interventions noted:

I particularly noticed again that Student Number 3 was indifferent to the idea. He did not care about the project and did not care about the prizes. His statement under his breath in reference to the prizes was “That’s it? Who cares?” His motivation is severely lacking when it comes to reading.

Another entry from my journal notes stated:

Both groups seem disinterested with the books we are reading, which is surprising because I chose them based on their correlation with our field trip. Most students barely follow along and do not participate in discussions. They must be constantly prompted to read along and do not respond to discussion questions unless they are prompted. Even then, they have little to say.
After I discovered the trend in these early entries, I decided to review the video recordings from the lessons closest to those times. The closest video entry was a week later; however, upon viewing the tapes again looking specifically for indications of disinterest or low motivation, I did notice several students that displayed these qualities in the video. Student Number 3 rarely followed along and spent much of the time looking around the room or flipping through his book and looking at the pictures. Student Number 5 rolled his eyes at least three times as we continued reading, and Student Number 7 played with his book more than he read. The rest of the students appeared to be reading and following along, however, they did not seem excited about it. They simply appeared to be going through the motions.

After a couple of weeks of interventions and setting goals, my observation notes started to show a significant increase in student participation and motivation. Only three weeks after Student Number 3 was noted to have made those negative remarks regarding the project, my journal entries indicated that he approached me rather excitedly after taking a quiz and scored 100%. I looked at his book and noticed that it was slightly lower than the books he had been reading which prompted me to have a quick conversation with him regarding his selection. My notes stated:

*I took the opportunity to speak with him about reading for pleasure and that it is okay to read a book that is a little below every now and then if he is interested in the book (which he was). I expressed to him that it is important to enjoy reading and, really, that is what we are trying to promote. He seemed pleased with the conversation and appeared to be a little more motivated (less of an attitude).*

Other entries included statements such as:

*We also reviewed our reading goals today and a lot more students made their goal. This group seemed a little more excited about doing well.*
During the afternoon reading group, I heard MANY students leaving the computer center very excited that they did well on their quizzes and were meeting their goals. Students are really starting to get into it.

The group was real excited to read the story after the picture walk. ...The students read together on the same pace and were not distracted as they were before. They also seemed to be more involved with the discussions. Student Number 7 wanted to share his experience with German shepherd dogs and puppies which was rare. He usually does not contribute as much.

I decided to review the videos for confirmation of these findings as I did with my earlier observations. I was pleased to see that the behaviors noted in the earlier videos occurred significantly less. Student Number 3 appeared to be following along in all the lessons and contributed quite frequently. Student Number 7 still played with his book every now and then; however, it was not near as much as it was towards the beginning of the intervention. The remaining students seemed to smile more and I was calling on students to provide them with opportunities to share as opposed to soliciting responses to spark a discussion.

All of the evidence from my observations and notes indicated that the students who participated in the interventions became more engaged and participation increased as a result. These findings were fascinating to me; however, I realized that they did not fully answer my research question: “What are the effects of explicitly teaching self-regulated reading comprehension strategies to fluent readers who are struggling with reading comprehension?” I still wanted to see how these interventions affected reading comprehension. I recognized that in order for me to truly understand the effects that these self-regulated reading strategies had on my students I would need to know which strategies were being used by whom and how often.
Students’ Use of Self-Regulated Reading Strategies

I used classical content analysis (Leech & Onwuegbuzie, 2008) to code the self-regulation logs and weekly student interviews. I used the strategies listed on the logs as themes and noted all documented use of strategies in a frequency distribution table. I reviewed each student’s weekly goal sheet that was used during my weekly interviews to note any indications of students using self-regulation through their self-evaluation remarks. What I discovered was that some of the students hardly had any documented use of the self-regulated reading strategies while others displayed consistent use of some of the strategies. The strategies listed were: 1) choosing a place to read that would help them concentrate, 2) stopping and correcting their reading habits when they become distracted, 3) asking for help when they did not understand what they read, 4) using a dictionary to look up words they don’t know 5) asking questions about the text while reading, and 6) making predictions about the story.

Many of the self-regulation take home logs were not included in the data. This was because many of them were returned with every trait for every day initialed as being observed. This was unusual for most of these students since none of those traits were being displayed by those students in school. I noticed this as being a common trend among the students after a couple of weeks into the intervention and addressed it during one of our group reading sessions. It appeared that many of the students or parents were confused with the log and what was expected originally. They thought it was an assignment much like our reading logs that they initial if their students simply read at night and were initialing the logs blindly. This was confirmed through a conversation that
I had with a parent as they volunteered in our classroom. After I addressed the issue with all eleven students, only three students returned self-regulation logs that appeared to be thoughtful and accurate. In order to maintain the integrity of the study, I chose to only include those self-regulation logs that appeared to be accurate and reflected similar behaviors witnessed from those students in class. Students Number 6, 9, and 11 were those students that had take-home self-regulation logs included in the data.

Student Number 6 reported that she had five instances where she asked for help when she did not understand what she read and one instance of asking questions about the text while reading. This student’s use of these reading strategies was also verified by parent communication. Her mother volunteered in our class every week. On one occasion, I noted in my journal entry that her mother asked “Have you guys been doing something different in reading? I have noticed that Student Number 6 is asking a lot more questions when she reads at home and wants to talk about the book more.”

Student Number 9 noted that she had two instances of asking for help when she didn’t understand what she read and one instance of moving to a different location in the house when it got too noisy. These instances also occurred during the same two-week period as Student Number 6.

Student Number 11 also noted use of these strategies during that same two-week period. She indicated two instances of choosing a place to read that would help her concentrate, one instance of asking for help when she did not understand what she read, two instances of moving to a different location when it got too noisy, two instances of asking questions about the text while reading, and two instances of making predictions about the story.
The remaining (and majority) of data regarding students’ use of self-regulated strategies was derived from classroom observations and weekly interviews. I kept a log book in the classroom so that my mentor teacher and I could document any time that we witnessed one of the students displaying use of any of the strategies. This proved to be a very difficult task to maintain since the majority of our reading time was done in rotations. My mentor teacher and I were generally teaching the other groups while these students had opportunities to read independently. We were not able to identify or witness many of these strategies (if they were being displayed) as a result. We did the best we could, however most of the indications listed in this log came from direct contact with these students during our group instruction or obvious occurrences that were noticed as we scanned the room to monitor those students working independently. Table 1 lists the total instances of the self-regulated reading strategies that were tallied for all eleven students that participated in this project:

The most common strategy observed was asking for help, followed by the reading comprehension strategies that were able to be explicitly taught, modeled, and reviewed. After I reviewed the frequency distribution, I wondered why there were so few uses of the self-regulated behaviors of ‘choosing a place to read that will help me concentrate’ and ‘I stopped to correct my reading habits when I became distracted.’ After reflecting on my research design, I began to notice fallacies with the design of the study. These two strategies were unrealistic in a normal classroom setting with twenty-six students. There are not many places for students to go in the classroom to read and with my mentor teacher and I running small groups while independent reading was occurring, the students were in a constant state of distraction. Recommendations for these elements
Table 1

*Student’s Use of Self-Regulated Strategies*

<table>
<thead>
<tr>
<th></th>
<th>I thought about and chose a place to read that will help me concentrate</th>
<th>I stopped and corrected my reading habits when I became distracted</th>
<th>I asked for help when I didn’t understand what I read</th>
<th>I used a dictionary to look up a word I didn’t know</th>
<th>I asked questions about the text while reading</th>
<th>I made predictions about the story I was reading</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 3</td>
<td>1 1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Student 4</td>
<td>6</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 6</td>
<td>1 19</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Student 7</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Student 8</td>
<td>1 1 6</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 9</td>
<td>2 7</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 10</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 11</td>
<td>2 2 9</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Uses of Strategy</strong></td>
<td><strong>4 8 49 1 18 22 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
in the study will be reviewed in Chapter V. Several students were able to indicate that they thought about and used these strategies during my weekly interviews, indicating that while difficult, it was still possible. This also indicated that other students might have been using these strategies as well, but they were just not documented.

**Reading Comprehension**

Reading comprehension was evaluated in two ways. Student’s performance on multiple choice comprehension quizzes through the schools on-line reading program Accelerated Reader (AR) was evaluated along with students’ displays of inferential comprehension during group reading sessions. Data on reading comprehension was then cross referenced to students’ use of the self-regulated reading strategies that were taught.

Not all students had gains in reading comprehension and some students that showed significant gains had minimal amounts of documented self-regulated strategy use. All students that participated in this research improved in both reading level and book length. Those students that had the most documented use of these strategies showed various forms of reading improvement. Those students were Student Number 3, 4, 6, 8, 9, and 11. For Student Number 4, 9, and 11, I incorporated the data that was noted from their self-regulated home logs as well.

Student Number 3 had the fewest number of documented self-regulated strategy use; however, he was one of the few students who was able to effectively describe his self-regulated use of the reading comprehension strategies. That is, using the reading comprehension strategies that were taught in a self-regulated manner. He also displayed instances of choosing a place to read that would help him concentrate and stopping and correcting his reading habits when he became distracted. As an example,
one response to the weekly interview question of how he was able to meet his goal was: “I did not sit next to anyone or talk while I read.” It was clear that this student was consciously using these practices while reading. The fact that he only had a few instances of documented use could also be explained by the fact that towards the end of my interventions he began reading a chapter book that was over 50,000 words at a 4.9 reading level. He spent most of his time reading and did not make reading goals for several weeks. As a result, I failed to conduct weekly interviews with him. The fact that this student was reading a book (successfully) at this level was significant, because he was one of the primary students that displayed negative attitudes towards reading and this project. Once the project began, his attitude changed significantly along with his reading performance. This student improved his average quiz score by 10.8% and his average book level by .4 grade levels. In addition he improved his average words read per week by 3,854. (He had not finished reading that particular chapter book by the time my data was collected; otherwise these figures would have been significantly higher).

Student Number 4 most often used the strategies of asking for help when he didn’t understand what he was reading and asking questions about the text while reading. These were limited to the reading comprehension strategies that were taught. He did not show any indications of self-regulating the use of these strategies, however, he still showed significant gains in his AR performance. He increased in pass rate by 17.5%, improved his average comprehension score by 15.10% while at the same time improving his average words read per week (indicating longer books) by 2,102 words. AR reporting scores were the only improvements that this student appeared to make. There were not any indications that Student Number 4 demonstrated any changes in reading
comprehension after reviewing my observation notes or video notes. In fact, several of my last entries listed this student as still making errors when it came to inferential comprehension.

My very last entry noted:

*I asked how they knew that and everyone pointed to the picture of the man standing next to Buddy with a funny face. None of them were able to use the text to tell me. I offered three points to the first person who was able to find in the story where people were surprised about Buddy. Student Number 4 read something that had nothing to do with it all.*

Student Number 6 demonstrated the most use of the reading strategies; however the amounts of these occurrences were dominated by one strategy: asking for help when she did not understand what she read. This one strategy occurred 19 total times. This student did not have much change in her AR reading progress, primarily because she was already one of the most successful readers in the school. This student’s baseline average was 94.4% at a 2.8 book level, therefore it was not expected that there would be much of a gain in this area. She did make significant gains in her reading level though. She increased by a staggering 1.3 grade levels, raising her average book level to 4.1. Her increase in average comprehension score was only .20% and not significant enough to note directly, however it does indicate that this student became successful at comprehending much harder books. She was one of two students who showed indications of improvement in inferential comprehension as well. At the beginning of my interventions I noted that all students appeared to be struggling with inferential comprehension. One of my very first entries noted:

*I have been teaching several small groups of students reading comprehension strategies to prepare for my action research. While doing so, I have begun to notice that many of these students are struggling with inferential comprehension. For*
instance after reading a passage from a reading comprehension practice page, I asked the students a question. The answer was found two sentences before the question was asked. The majority of the students were not able to answer the question correctly.

Student Number 6 was included in this group of students. As the interventions progressed, Student Number 6 was noted to make inferences in three different entries of my observation notes and in all occasions where inferential comprehension was noted, she was one of two students that answered correctly.

Student Number 8 showed 12 instances of using these strategies. Ten of the eight uses involved the three reading comprehension strategies. The other two used were one of each self-regulated strategy. This student was also noted to use another self-regulated strategy of consciously selecting a book based on her reading ability. This strategy was not taught directly, however, it was something that several of the students were noted to be doing after the interventions began and does require self-regulation. This student improved in all areas of her AR performance as well. She improved her pass rate by 20% and her average score by 16.6%. She also improved her average book level by .7 grade levels and average words read per week by 3,540, indicating that she began reading longer and harder books. This was impressive because her baseline average prior to the interventions indicated that she was already reading books close to 2,000 words at level 2.6. Most other students were reading books under or around 1,000 words. My observation notes indicated that Student Number 8 might still be struggling with inferential comprehension. Over a month after the interventions began one entry stated:

Student Number 8 wanted to know what “Benders” was (a name of a store). We read the sentence again and figured it out from context. She was also confused about why. Cam was walking with her eyes closed (her friend was trying to get her to imagine ice cream because he wanted one). Student Number 1 did an excellent
job explaining this, but Student Number 8 did not understand. Student Number 11 explained it again, but she did not want to accept it.

There were no other entries in my observation notes or video notes regarding this student’s comprehension. My notes focused mostly on instances where students were still struggling, therefore it is possible that was an isolated incident and related towards background knowledge rather than comprehension.

Student Number 9 showed a combination of using the self-regulated strategies as well as the reading comprehension strategies that were taught. I was unable to definitively state where this student used the reading comprehension strategies in a self-regulatory manner though. There was no evidence to suggest this in her interviews or my observations. This student did not show any significant change in any area of her AR performance. She decreased her average comprehension score by .20%, however her overall average was still 90.7% indicating that she was still successful. She improved her pass rate by 2.2%, her average book level by .2, and her average words by 515 words. These changes were not significant enough to indicate that use of these self-regulated strategies had any effect on her reading performance. My observation notes did not show any indication that there was a change in Student Number 9’s reading comprehension either.

Student Number 11 displayed the highest variety of uses through consistent use of the self-regulated strategies as well documented self-regulated use of the reading comprehension strategies through observations, student interview, and self-regulation logs. She had two occurrences of choosing a place to read that would help her concentrate and two occurrences of correcting her reading habits when she got distracted. She also
displayed asking for help when she didn’t understand what she read nine times, asking questions about the text six times, and making predictions about the story three times. This student also improved in all areas of her AR performance significantly. Her pass rate increased by 13.6% and her average score by 11.5%. In addition, she improved her reading level by .4 grade levels and her words per week by 2,057 words. My observation notes also indicated an increase in comprehension. As I reviewed my observation notes, I noticed that her name consistently appeared when discussing instances where other students were struggling with comprehension. On three different occasions she was noted to have clarified another student’s comprehension concerns. She was also the only other student (along with Student Number 6) that correctly responded to the inferential comprehension issues that were noted in my observation notes. These issues appeared 7 times in my notes. Student Number 6 responded to four of them while Student Number 11 responded the other three times.

Three of the remaining five students also showed significant increases in their AR performances; however they did not display significant amounts of the self-regulated strategies to establish a possible correlation. Student Number 10, for example, increased his pass rate by 32.1% and his average score by 18.10%, however he only showed three instances of using reading comprehension strategies. Student Number 1 increased his pass rate by 52% and his average score by 39.2% but he only showed one instance of any of the strategies. These are significant gains, however I was unable to make a claim that my interventions effected these changes since very few of the traits were witnessed or documented with these students. In general by the end of the interventions, all students
but one was successful in their AR performance by either improving in book level, words per week or averaging above 70%. Table 2 shows the changes for all 11 students.

TABLE 2

Changes in Reading Performance

<table>
<thead>
<tr>
<th>Student</th>
<th>Pass Rate (%)</th>
<th>Avg. Score (%)</th>
<th>Book Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
<td>After</td>
<td>Change</td>
</tr>
<tr>
<td>Student 1</td>
<td>38</td>
<td>90</td>
<td>52</td>
</tr>
<tr>
<td>Student 2*</td>
<td>100</td>
<td>91.6</td>
<td>-.08</td>
</tr>
<tr>
<td>Student 3</td>
<td>100</td>
<td>100</td>
<td>N/A</td>
</tr>
<tr>
<td>Student 4</td>
<td>58.6</td>
<td>76.1</td>
<td>17.5</td>
</tr>
<tr>
<td>Student 5</td>
<td>95</td>
<td>82.8</td>
<td>-12.2</td>
</tr>
<tr>
<td>Student 6</td>
<td>100</td>
<td>100</td>
<td>N/A</td>
</tr>
<tr>
<td>Student 7</td>
<td>14</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Student 8</td>
<td>80</td>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>Student 9</td>
<td>91.6</td>
<td>93.8</td>
<td>2.2</td>
</tr>
<tr>
<td>Student 10</td>
<td>42.9</td>
<td>75</td>
<td>32.1</td>
</tr>
<tr>
<td>Student 11</td>
<td>82</td>
<td>95.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>

* Student 2 only took two reading quizzes prior to interventions. Both books were very short picture books.

Inferential Comprehension

Student Number 6 and Student Number 11 were the only two students that appeared to improve in inferential comprehension. My observation notes indicated early on that most students were struggling with inferential comprehension. Early entries stated:
I have begun to notice that many of these students are struggling with inferential comprehension. They do okay with pulling specific details or information from the text as long as it is stated specifically in the text. They are having a hard time looking for answers within the passage.

The answer was found two sentences before the question the question was asked. The majority of the students were not able to answer the question correctly, even the highest readers and comprehenders.

When discussing the stars and the planetarium experiment they didn’t get it. They used a lot of guesses when answering comprehension questions. They are not able to pull information from text.

As my notes progressed towards the last couple of weeks, this theme was still present in several of my entries. For example:

In Aqua, we finished the book and discussed several elements. I noticed students were still having some difficulty with comprehension as we were discussing the story. I asked what we had read so far and what was happening when we left off. Student number 2 was convinced that the farmer had found a new house. Student Number 7 and Student Number 10 agreed. The other students in the group had difficulty correcting them.

During the same entry that day regarding the other reading group, I noted:

The conversation was okay, but I need to prepare some questions that require inferential comprehension and force responses from other students. The same students always seem to answer these questions. (Student Number 6 and 11)

Other entries made after that included:

The biggest concern was towards the end of the session I asked what we had just read and nobody could tell me. Student Number 1 and Student 10 looked at the pictures for answers but they could not tell me what they read.

This trend continued up to my very last entry where I stated:

I asked why and Student Number 10 said, “Because they didn’t believe a dog could be a guide.” I asked how they knew that and everyone pointed to the picture of the man standing next to Buddy with a funny face. None of them were able to use the text to tell me.
The consistent trend in these observation notes indicates that most students in my reading intervention groups were still struggling with inferential comprehension. Tompkins (2009) states:

Students often have to read a picture-book story or an excerpt from a chapter of a novel two or three times in order to draw inferences because at first they focused on literal comprehension, which has to precede higher-level thinking (p. 263).”

I realized after my interventions were complete that the reading comprehension strategies and self-regulated reading strategies were not tailored to promote inferential comprehension. My original thought was that as students developed self-regulation, they would acquire the higher level thinking that inferential comprehension requires. This proved to not be the case. In fact, inferential comprehension requires its own series of steps for development that were not directly incorporated into this study (Tompkins, 2009). Those steps include 1) Activating background knowledge about topics related to the text, 2) Look for the author’s clues as you read, 3) Ask question, tying together background knowledge and the author’s clues, and 4) Draw inferences by answering questions (Tompkins, 2009, p. 263). Since these steps were not directly addressed or incorporated into the interventions, I was not able to make any correlation between inferential comprehension and the self-regulated strategies that were taught.

Conclusion

My philosophy in education involves preparing my students for success in and out of school. I believe that students who are able to self-regulate their learning have a greater opportunity to achieve this success. Since independent learning, both in and out,
of school requires a high level of comprehension, I chose to focus my study on teaching self-regulated strategies that relate to reading comprehension. I knew that in order to validate my findings and make the results more trustworthy and meaningful, I needed to triangulate my data (Leech & Onwuegbuzie, 2008). I looked back at my findings and looked for common themes that occurred in multiple sources of data.

The most common theme was student participation and motivation. This appeared throughout all sources of data. After a couple of weeks of interventions, students became more active in the lessons, began asking more questions, and displayed excitement about their progress and reading in general. During my first two weeks of interventions, my notes included four instances where students had negative attitudes towards reading and at least seven documented instances of students not participating. After the second week, my notes included statements such as:

More students made their goals this week. This group seemed more excited about doing well.

During the afternoon reading group, I heard MANY students leaving the computer center very excited that they did well on their quizzes and were meeting their goals. Students are really starting to get into it.

In addition to these to self-regulation questions, I was bombarded with questions regarding content and vocabulary from a good portion of the class.

I noticed a difference between the two groups and how well they went. Aqua continued to read and follow the story better. They all read really well and followed along. They also stayed on topic better when talking about what they were thinking when they read.

My mentor teacher even noticed an increase in student engagement. In one of my journal entries I noted that:

My mentor teacher also noted that she was getting great questions on vocabulary and content from the students as she helping in the main part of the room.
After the first two weeks of interventions, my notes indicated at least seventeen instances where students asked clarifying questions about their reading selection. There were zero documented instances of this during the first two weeks. These notes were consolidated from my anecdotal notes, daily journal entries, video observations and observations made by my mentor teacher. On all accounts, student participation and motivation was increasing after two weeks of interventions.

Reading performance also indicated significant gains for many of the students; however triangulation of data was only possible for a couple of the students. Due to a lack of documented use of self-regulated strategies, I was not able to make a definitive correlation between students’ use of self-regulation and reading comprehension in some cases. It is possible that those students that showed gains in comprehension did incorporate the use of self-regulation; however, with no documentation I could not make that claim. After several weeks of the interventions, students began to display an increased amount of the reading comprehension strategies that were taught. Due to the variables that were previously listed, I was not able to adequately identify whether or not the use of these comprehension strategies were self-regulated. I was still able to note that some students who displayed use of these strategies generally showed improvements in their reading performance. Table 3 indicates the total number of the reading comprehension strategies that were displayed and improvements that were made based on AR reports. Note that one student only indicated one use of the strategies, yet still made significant gains in reading performance (Student Number 1) while another showed a decrease in reading performance (Student Number 5). Some students who displayed fewer uses of these strategies displayed higher gains than those who displayed more uses.
### Table 3

*Student’s Total Use of Strategies and Performance Increases*

<table>
<thead>
<tr>
<th>Total Strategy Use</th>
<th>Performance Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>Pass rate increased 52%</td>
</tr>
<tr>
<td></td>
<td>Avg. Score increased by 40%</td>
</tr>
<tr>
<td></td>
<td>Book level increased by .9 grade levels</td>
</tr>
<tr>
<td>Student 2</td>
<td>Grade level increased by .3 grade levels</td>
</tr>
<tr>
<td></td>
<td>Average words per week increased by 2,063</td>
</tr>
<tr>
<td>Student 3</td>
<td>Average score increased by 10.8%</td>
</tr>
<tr>
<td></td>
<td>Average book level by .4 grade levels</td>
</tr>
<tr>
<td></td>
<td>Average words per week increased by 3,854</td>
</tr>
<tr>
<td>Student 4</td>
<td>Pass rate increased by 17.5%</td>
</tr>
<tr>
<td></td>
<td>Average score increased by 13.10%</td>
</tr>
<tr>
<td></td>
<td>Average book level increased by .4%</td>
</tr>
<tr>
<td></td>
<td>Average words per week increased by 2,102 words</td>
</tr>
<tr>
<td>Student 5</td>
<td>Average words per week increased by 816 words</td>
</tr>
<tr>
<td></td>
<td>(Pass rate, average score both decreased)</td>
</tr>
<tr>
<td>Student 6</td>
<td>Average book level increased by 1.3 grade levels</td>
</tr>
<tr>
<td></td>
<td>Average words per week increased by 658 words</td>
</tr>
<tr>
<td></td>
<td>Average score increased by .20%</td>
</tr>
<tr>
<td>Student 7</td>
<td>Pass rate increased by 11%</td>
</tr>
<tr>
<td></td>
<td>Average score increased by 15.41%</td>
</tr>
<tr>
<td></td>
<td>Average book level increased by .6 grade levels</td>
</tr>
<tr>
<td>Student 8</td>
<td>Pass rate increased by 20%</td>
</tr>
<tr>
<td></td>
<td>Average score increased by 16.60%</td>
</tr>
<tr>
<td></td>
<td>Average book level increased by .7 levels</td>
</tr>
<tr>
<td></td>
<td>Average words per week increased by 3,540 words</td>
</tr>
<tr>
<td>Student 9</td>
<td>This student showed no significant change in any area</td>
</tr>
<tr>
<td>Student 10</td>
<td>Increased pass rate by 42.25%</td>
</tr>
<tr>
<td></td>
<td>Average score by 18.10%</td>
</tr>
<tr>
<td></td>
<td>Average book level by .9 grade levels</td>
</tr>
<tr>
<td></td>
<td>Average words per week increased by 919 words</td>
</tr>
<tr>
<td>Student 11</td>
<td>Pass rate increased by 13.30%</td>
</tr>
<tr>
<td></td>
<td>Average Score increased 11.5%</td>
</tr>
<tr>
<td></td>
<td>Average book level increased .4%</td>
</tr>
<tr>
<td></td>
<td>Average words increased 2057</td>
</tr>
</tbody>
</table>
There are other factors that could be involved with this finding that includes students’ background knowledge and/or vocabulary (Tompkins, 2009). What is important to note is that those students that displayed the most consistent and documented use all showed gains in some form of their reading performance. Student Number 3, 6, 8, and 11 all displayed use of both the self-regulated reading strategies as well as self-regulated use of the reading comprehension strategies. These strategies were documented through observations, student interviews, and self-regulation logs. All of these students showed a significant increase in reading performance and reading comprehension, indicating that there is a potential positive correlation between students’ use of self-regulated reading practices and reading comprehension.

My participation in this action research has taught me several things. Despite, not being able to definitively state that students’ use of self-regulation increases reading comprehension in all cases, a lot of positive things were derived from this study. Even though the data is inconclusive in some cases, students showed positive gains as a result of these interventions. They developed more of a positive attitude towards reading, became more engaged in lessons, and in most cases showed gains in reading performance. As an educator, I learned that it is often the process that enlightens new ideas. Prior to this study I would more than likely not have attempted self-regulation as a tool to increase reading comprehension. Through the process, I was able to see the benefits and possibilities that exist in this field. With a few corrections to the design and more time, I believe that a significant correlation can be made between self-regulation and reading comprehension.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This research was based around my desire to develop self-sustained learners. As an educator, I believe that it is important to teach in a way that is authentic and meaningful to your own philosophies while at the same time addressing the needs of your students. While preparing for this action research, I embraced those ideals and designed the study around using self-regulation as a means to increase reading comprehension. I recognized a need within the majority of my students to improve their reading comprehension and self-regulation is a practice that promotes students taking control of their own learning.

Comprehension is the foundation of learning. Students that do not comprehend what they read cannot be expected to learn from reading. This is crucial in all aspects of education. Teachers only have a limited time with students, therefore much of student learning needs to take place through independent practice. This requires comprehension. The purpose of this study was to provide students with a skill that would be beneficial for increasing reading comprehension and provide successful learning opportunities both in and out of school.
Previous research in reading comprehension and self-regulation suggest that effective use of these strategies are not common among primary school learners, however they can be taught through direct instruction (Hilden & Pressley, 2007; Schunk & Zimmerman, 1998). Research also indicates that development of these practices in second grade learners requires an extended amount of time and consistent modeling and practice of those strategies (Brown et al., 1995). This posed one of the major limitations within this study, time.

Time was a major limitation for this study both due to the limited amount of time allotted for language arts curriculum and the amount of time that I had to conduct my research. The other major limitation was that of the developmental stage of these students. Most of these students were transitioning from the self-control stage to the self-regulation stage (Boekaerts, Pintrich, & Zeidner, 2005). This implies that some of these students have not fully developed the metacognitive abilities that would allow them to recognize and articulate their use of self-regulated practices. To compensate for these factors, I designed the study around a rigid structure of direct instruction and modeling of these strategies using goal setting as the catalyst for my instruction and research. To compensate for the students’ potential inability to articulate their use of self-regulated strategies, I created self-regulation logs that my mentor teacher and I could use to document the students’ use of the self-regulated strategies along with observation notes and student interviews.

I used goal setting as the catalyst for instruction because development of self-regulation requires a cyclic process consisting of 1) self-evaluation and monitoring, 2) goal setting and strategic planning, 3) strategy implementation and monitoring, and 3)
strategic outcome monitoring (Zimmerman, Bonner, & Kovach, 1996). Goal setting provided an opportunity to guide and monitor my students through this process. Students were taught how to self-evaluate their own reading performance and set realistic goals for improvement. During the course of each week, students would need to think about strategies that they might use to help them reach their goal. At the end of the week, I conducted interviews to help them self-evaluate their performance and outcome of their goals. If students met their goal, they would need to let me know what they did to help them meet their goal. If they did not meet their goal they were asked to think about why they did not and what they could have done differently. In both cases, students were asked to think about what they did well and what they had difficulty with as well. At that point, they set a new goal and the process started over again.

As I conducted my interventions, I recorded students’ responses and interactions throughout my lessons through a running record of journal entries, anecdotal notes, and videotapes. After the interventions were complete this data was coded using constant comparative analysis to look for any emerging themes (Leech & Onwuegbuzie, 2008). Reading comprehension was documented through running records of on-line multiple-choice reading comprehension quizzes through AR as well as any indications of reading comprehension that emerged through data analysis of my observations and videos. All of this information was cross-referenced with each student’s use of the self-regulated strategies that were displayed. This information was derived from using a frequency distribution table after analyzing the self-regulation logs, observations, and student interviews.
Conclusions

Through my analysis of the data, several themes presented themselves. I discovered that all students who participated in the study showed increased participation and engagement during my reading groups as well as an overall sense of improved attitude towards reading. Students who had originally displayed negative attitudes towards reading and/or rarely participated in reading groups began to show signs of increased motivation and engagement. This finding was documented through anecdotal notes, videos, daily journal entries and student interviews. This theme appeared in all aspects of my data and involved all students that participated in this research regardless of their documented use of self-regulated strategies. All students that participated in this study appeared to begin enjoying reading.

Reading performance was also improved in several areas, although not all improvements were able to be tied directly to use of the self-regulated strategies. These improvements showed increases in reading level, average words read per week, pass rate on quizzes, and average quiz scores. Eight of the eleven participants improved in all areas of reading performance, indicating that they increased comprehension while reading longer, harder books. Five of these eleven students showed indications of self-regulation through the process indicating that there could be a correlation between self-regulated reading strategies and reading comprehension. It is important to note that my findings did not show improvement in all aspects of reading comprehension. Multiple choice quizzes are one form of reading comprehension, but there are various forms of comprehension. Inferential comprehension is another form of comprehension that requires a higher order thinking skill (Tompkins, 2009). This comprehensions skill was evaluated and
documented through observation notes and anecdotal notes taken after my group reading sessions. There were only two students that indicated any change in inferential comprehension. This suggests that either the students that participated in this research had not yet developed those higher order thinking skills that are required for inferential comprehension and/or there may not be a correlation between self-regulation and this form of comprehension.

Recommendations

The process of designing, performing, and analyzing this research project taught me a lot about the benefits of action research. By designing and implementing a research project that was based around my own teaching practices, I learned a lot about myself as well as the students. I learned that instruction should be driven by the students needs while expressing high expectations for all learners. The process was just as important as the outcome. Even a study with flaws in the design can have positive outcomes for the students, as was the case in this particular study. Several aspects of the research design could easily be modified to provide a more detailed and accurate look this research question.

One major area that could use improvement is that of documenting students’ use of the self-regulated reading strategies. As I designed the experiment, I tried to envision how this study would look in the classroom; however, I overlooked a couple key components. I knew that it was going to be crucial for my mentor teacher and I to document the students’ use of the self-regulated strategies due to the developmental stage of our students (Boekaerts, Pintrich, & Zeidner, 2005). I created the self-regulation logs
as a tool for us to do so in class and created what I considered to be a ‘kid friendly’ version of the log to document use of these strategies at home. What I did not take into account was that students would primarily be implementing these strategies during their independent reading time. This would require my mentor teacher or I to be available to monitor the students more directly during this time, however, we were both teaching small groups while students were reading independently. This prevented us from documenting potential uses of these self-regulated strategies and limiting possible correlations. To rectify this design flaw, I would recommend restructuring the Language Arts rotations to allow for at least one qualified observer to monitor independent reading time. This could be done if the study was conducted in a classroom structure similar to ours where we were using a co-teaching model of instruction. Rotations could be split where one teacher is conducting instruction in small groups while the other groups are rotating through an independent reading rotation, seat work, and/or and activity such as computers depending on how many readings groups the class has. This would free up one teacher to assist with seat work, computers, and independent reading. This would allow for a more accurate look into students’ use of self-regulation during independent practice.

Another form of documenting students’ use of the self-regulated reading strategies that could be easily adjusted is the use of the take home self-regulation logs. Many of these logs were returned (in my professional opinion) erroneously. A conversation that I had with one parent indicated that they did not understand the directions that were sent home (or did not read them), therefore, they were not exactly sure how to fill them out and/or what was expected of them. This caused most of the take home self-regulated logs to be unusable. This situation can also be easily adjusted by
minor modifications. I would recommend calling the parents of students who will be participating in the study and discuss with them the specific process that is being asked of them. If parents are recruited and volunteer to help, they can provide accurate information of their child’s use of self-regulation at home. This would require some training or education in the specific traits that appear on the log and self-regulation in general. Once parents are sufficiently informed, they will be much more prepared to offer support. Parent interviews would be another recommendation to document students’ use of these strategies at home. If parents are prompted to think about their child’s behaviors while reading at home they might be more likely to relay pertinent information that they otherwise would not have thought about. Both of these modifications to the design could easily increase the integrity of the study by providing more accurate documented action of the self-regulated strategies.

I would also recommend allotting more time for the intervention and research process. Studies have shown that both development of self-regulation as well as effective use of reading comprehension strategies among second grade learners take an extended amount of time (Brown & Palincsar, 1985; Brown et al., 1995). This study was designed around a four-month period that included instruction of reading comprehension strategies and self-regulated reading strategies as well as data collection. I believe that if students were given more time to fully develop these strategies, there would a significant increase in the use of these strategies. Once students begin using the strategies more often and effectively data collection and analysis could lead to more detailed information regarding a correlation between reading comprehension and self-regulation.
I believe that implementation of all of these recommendations would enhance the significance of the study significantly. Data collected through this process would entail accurate documentation of students use the self-regulated strategies as well as detailed descriptions of students’ behaviors during the intervention process. I believe that this would enhance the students learning experience and provide them with an opportunity to reach their full potential in developing self-regulated reading strategies.
REFERENCES


http://star.cde.ca.gov/star2010/ViewReport.asp?ps=true&lstTestYear=2010&lstTestType=X&lstCounty=11&lstDistrict=75481-000&lstSchool=6007488&lstGroup=1&lstSubGroup=1


APPENDIX A
WEEKLY GOAL SETTING SHEET

Name: ____________________ Date: ______________

# Taken: ______ # Passed: ______ Rd. Level: ______ Avg: ______

New Goal:

Did you meet your goal? How?

Things I did well:

Things I had a hard time with:
<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thurs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I chose a place at home to read that will help me concentrate</strong></td>
<td>Initials</td>
<td>Initials</td>
<td>Initials</td>
</tr>
<tr>
<td><strong>I asked for help when I didn't understand what I read</strong></td>
<td>Initials</td>
<td>Initials</td>
<td>Initials</td>
</tr>
<tr>
<td><strong>I moved to a different place in the house when it got too noisy</strong></td>
<td>Initials</td>
<td>Initials</td>
<td>Initials</td>
</tr>
<tr>
<td><strong>I asked questions about the text while reading (who, what, where, when, etc.)</strong></td>
<td>Initials</td>
<td>Initials</td>
<td>Initials</td>
</tr>
<tr>
<td><strong>I made guesses about what will happen next in the story</strong></td>
<td>Initials</td>
<td>Initials</td>
<td>Initials</td>
</tr>
</tbody>
</table>
APPENDIX C
## SELF-REGULATORY BEHAVIOR
### IN CLASSROOM

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Date</th>
<th>Initials</th>
<th>Date</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>I thought about and chose a place to read that will help me concentrate</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I stopped and corrected my reading habits when I became distracted</td>
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<tr>
<td>I asked for help when I didn’t understand what I read</td>
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<td></td>
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<tr>
<td>I used a dictionary to look up a word I didn’t know</td>
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<td></td>
</tr>
<tr>
<td>I asked questions about the text while reading (who, what, where, when, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I made predictions about the story I was reading</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I met my reading goal for the week</td>
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<td></td>
</tr>
<tr>
<td>Other</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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