Student Usage of Curriculum Taught Reading Strategies

Atlanta M. Hutchins

Concordia University Portland

An Action Research Proposal/Report Presented to
The Graduate Program in Partial Fulfillment of the Requirements
For the Degree of Masters in Educational Leadership

Concordia University Portland

2011
Abstract

The purpose of the action research was to determine which reading strategies the current reading curriculum taught and then determine which of these strategies students used most often while reading. The researcher used a pre- and post-survey, informal observations, surveys, and weekly lesson comprehension tests to collect data. The research was conducted in a fourth grade classroom in which the researcher was a volunteer. Results of the study showed that while students used reading strategies, it did not necessarily result in an increase in test scores. The results indicated that the more students learned about reading strategies and practiced them, the more likely they were to use them independently.

*Key words:* reading, comprehension, reading strategies
Table of Contents

Chapter One – Introduction ................................................................. 4
Chapter Two – The Issue ................................................................. 9
Chapter Three – The Goal ............................................................... 18
Chapter Four – Action Plan .............................................................. 21
Chapter Five – Results and Next Steps ............................................. 29
References .......................................................................................... 43
Appendix A – Teacher Survey ........................................................... 47
Appendix B – Student Survey ............................................................. 48
Appendix C – Student Survey ............................................................. 49
Appendix D – Teacher Survey ............................................................. 51
Action Research Proposal

Chapter One- Introduction

While driving on Interstate-95 through Maryland, one drives through a variety of landforms, from heavily wooded areas to streets packed with row houses and people, ultimately ending up at the Atlantic Ocean. Maryland’s population was just as diverse as these landforms. Families ranged from those who lived in the area for decades, as well as the Army families who only resided in Maryland for a short period of time.

Located near the local Army installation, the city of the research site worked to provide a safe and welcoming community for its inhabitants. Roughly 20% of the population worked at the Army installation, either as a civilian or a member of the Armed Forces. The main industries of employment in the area were the educational, health, and social services fields as well as the retail and manufacturing trades (U.S. Census Bureau, 2000, p. 3). Over 78% of the population commuted to work everyday, averaging as much as 30 minutes a day of traveling time. Many of the people employed by the Army installation did not live near the city, but rather in several of the larger cities that are 30 to 60 minutes away.

With a population nearing 26,000, the city was 59% Caucasian and 34% African American. English was the primary language for 92% of the population with only 7% speaking Spanish and the other 1% divided among Indo-European and Asian and Pacific Island languages (U.S. Census Bureau, 2000, p. 1). The city had several new housing developments consisting of newly built townhomes. It also had several older housing districts where row houses were built next to one another with very small yards.
The city had two elementary schools, one middle school, and one high school. The schools were overseen by the county, along with the 50 other schools in the county. Of the 33 elementary schools in the county, only six were Title I schools. Title I schools had 55% or more of their individual school student population who came from low-income families and qualified for free and reduced lunches. Schools classified as Title I schools were able to use their Title I funding money to improve instruction throughout the entire school for all students. Schools not eligible for Title I status had to use their Title I funding to specifically provide targeted services for the low-achieving students. During the 2009-2010 school year, the research site had 51% of its students receiving free and reduced lunches (School Improvement in Maryland, 2010). Therefore, it was not considered a Title I school because it fell four percent short of the cut-off, however it received some Title I funds to be used to provide targeted services solely for low-achieving students.

During the 2009-2010 school year, two schools within the county did not meet their Adequate Yearly Progress goals (AYP) for the second consecutive year and were declared to be in Step One of “School Improvement” as established by No Child Left Behind (NCLB). Parents of students attending those schools were given the option for their student to transfer to two different schools outside their boundary district and still receive transportation provided by the county. One of these transfer school options was the research site. The research site received approximately 100 new enrollments from these two schools in Step One of “School Improvement.”

The research site contained kindergarten through grade 5. There were 24 students enrolled in the Talented and Gifted Program (TAG) and 28 students enrolled in Special Education classes. According to the Maryland State Department of Education
(MSDE) the research site had an enrollment of 514 students divided into the following racial groups (2010)

<table>
<thead>
<tr>
<th>Race</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>267</td>
</tr>
<tr>
<td>White</td>
<td>181</td>
</tr>
<tr>
<td>Hispanic</td>
<td>43</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>17</td>
</tr>
<tr>
<td>American Indian/AK Native</td>
<td>6</td>
</tr>
</tbody>
</table>

In July of 2010, the research site moved out of its old elementary school building, and into a brand-new building built directly behind the old school. The new school contained more storage space as well as an abundance of new technology, including interactive whiteboards, computer labs, and laptops. There were four teachers for each grade in addition to four Special Education teachers. There was also a guidance counselor, school nurse, math specialist, and speech/language pathologist. For the scheduled “specials” there were two of each of the following teachers: media specialist, art, instrumental music, reading, physical education and vocal music.

The county pushed for all schools to meet AYP, as they were already dealing with two schools in Step One of “School Improvement.” They were beginning to narrow their focus on schools who barely met AYP or Annual Measurable Objectives (AMO’s) last year with the intentions of improving their scores. AMO’s were performance targets established by the state of Maryland that helped assess the annual progress of student subgroups, schools, school districts, and the state. In 2007 the county implemented new reading and math curriculum. In 2009 they added new technology that helped monitor student progress throughout the school year. In addition, they created new county-wide benchmarks based upon the new curriculum to help all students meet 2010 AMO’s and AYP goals.
The research classroom consisted of 19 fourth grade students, 10 boys and nine girls. There were seven students who were Caucasian and 12 African American students. Six of the students were seen twice a week by the Talented and Gifted (TAG) Coordinator for the county. These students scored between 2982 (Above Average) and 2760 (High Average) on their EdPerformance Benchmark test at the beginning of the 2010 school year. The other 14 students scored between 2246 (Below Average) and 2707 (High Average) on their EdPerformance Benchmark test.

The researcher had three years of experience working with students from preschool to high school in different school settings. She was completing her Master’s in Education Leadership through Concordia University and wanted to learn more about students in order be a more effective teacher, specifically focusing on reading strategies and instruction. She volunteered three days a week in the fourth grade research classroom at the research site. She assisted the regular classroom teacher when necessary and worked in small groups with the students. While at the research site she noticed that many of the students struggled in their comprehension of text and did not seem to be aware of reading strategies, even though specific reading strategies were covered by the reading curriculum and practiced during reading instruction.

The researcher provided her research results with the regular classroom teacher, Mrs. M, who has also noticed students’ difficulty with reading comprehension and made it a goal to work on improving her students’ comprehension. She planned to use the research results to modify her existing lesson plans to focus more on strategies that students used successfully or to introduce new material to supplement reading strategies that the curriculum did not adequately address.
Mrs. M was the regular classroom teacher. She had taught fourth grade at the research site for four years, and 18 years at an inner-city school before the research site. She noticed that every year students struggled with comprehension in their reading, but felt that each year the trend was increasing. Mrs. M was constantly evaluating students for comprehension of material through questioning and group work-alouds while basing their beginning performance during the school year against their reading scores from previous years (personal communication, September 13, 2010). Mrs. M was interested in improving the comprehension of students and knew it was important to learn which strategies taught by the reading curriculum at the research site were used most often by the students and how effective they were in enhancing comprehension.

The researcher was focusing her research on the specific reading comprehension strategies taught by the reading curriculum at the research site to determine how these strategies were being used by students to improve their comprehension.
Reading and comprehension are complex skills to master, each integrating several processes. There were different ways that students struggled with reading and comprehension. Some students had difficulty decoding the words, thus failing to attach meaning to the text that was read. Other students had no problem decoding the words, but still failed to comprehend what they had read in the text.

At the beginning of the year, Mrs. M noticed how much her students struggled with comprehension. She said that in her 18 year teaching career, her students had always struggled with comprehension, but she noticed it much more with this current group of students. They often “struggled to initiate assignments and were confused about how to start worksheets without guided examples and practice” (personal communication, September 13, 2010). She also noted that they had difficulty following verbal directions and even more difficulty understanding written directions. She was concerned that many of them were reading below grade level and were not at a fifth grade fluency rate.

Since No Child Left Behind, third, fourth, and fifth graders across Maryland have taken the Maryland State Assessment (MSA). The MSA was a criterion referenced test that measures student proficiency on the Maryland content standards within the reading and mathematics State Curriculum. It was administered every spring to students across the state. There were three sub-tests that made up the MSA: reading, mathematics, and science. All students took the reading and mathematics portions of
the test, with only fifth graders completing the science portion. The MSA results determined if a school had met AYP and AMO’s for the year.

After students took the MSA, their score was shared with the school where they took the test. Students were then categorized according to their scores. There were three levels that students could fall into: Basic (low scoring), Proficient (average scoring), and Advanced (above average scoring). The 2009-2010 reading MSA results from the MSDE (2010) showed that overall, 59.8% of third, fourth, and fifth graders at the research site were considered to be Proficient. There were 18.8% considered Basic and 21.5% considered Advanced. This meant that out of the entire third, fourth, and fifth grades, only 18.8% did not score high enough to “pass” the assessment.

The reading portion of the MSA was broken down into three different skill sets: general reading processes, comprehension of informational text, and comprehension of literary text. The lowest scores throughout all three tested grades fell within the skill set of comprehension of literary text. Last year, 25% of fourth grade students scored below 367 on the MSA in this skill set. To make the Proficient level a student must obtain a score of 371. Over 20% were within 56 points of making the Proficient level.

The 2010 AMO’s were 81.2% for reading and 79.4% for mathematics. The AMO’s were created by the state of Maryland to ensure that schools are on track to meet the NCLB goal of having 100% of students achieve proficiency in reading and mathematics by the end of the 2013-2014 school year. The research site met AYP for the 2009-2010 school year, but barely met the AMO of 81.2% with a score of 81.6%. The school had to work diligently in order to meet the 2010-2011 AMO of 85.9%. Below are four previous years of AYP and AMO’s scores for grades 3, 4, and 5 at the research site.
<table>
<thead>
<tr>
<th>School Year</th>
<th>AMO’s Proficient</th>
<th>AYP (Percent Proficient)</th>
<th>Percent Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/10</td>
<td>81.2</td>
<td>81.6</td>
<td>+0.4</td>
</tr>
<tr>
<td>08/09</td>
<td>76.5</td>
<td>82.9</td>
<td>+6.4</td>
</tr>
<tr>
<td>07/08</td>
<td>71.8</td>
<td>73.3</td>
<td>+1.5</td>
</tr>
<tr>
<td>06/07</td>
<td>67.2</td>
<td>77.6</td>
<td>+10.4</td>
</tr>
</tbody>
</table>

Although the school continued to meet AYP and AMO’s each school year, the gap between the two was closing. In the 2006-2007 school year, there was a proficient 10.4% gap between the two scores. In the 2009-2010 school year, there was only a proficient 0.4% gap between the two. This showed that many students were improving, but that there were still students who were not achieving a Proficient status. There also appeared to be a trend of improvement followed by a regression. If this trend continued, the 2010-2011 school year would be a year of improvement.

The researcher had noticed the difficulty students had comprehending directions and applying previously learned skills to new situations. Students appeared to be fluent readers, but confused simple facts of the story after reading. On the first comprehension test over the StoryTown reading curriculum text, 20% of students referred to the male main character as “her” instead of “him.” After a class discussion, two readings of the text, and a lesson over character traits, these students had failed to notice that the main character was male.

The September EdPerformance benchmark test taken by students in the research classroom gave Lexile measures and an overall scaled score of reading comprehension for each student. Students read fiction, nonfiction, and long passage texts, followed by
comprehension questions about the text. All students scored lower on the nonfiction stories, showing the researcher that they approached different reading texts in the same way. There was also a portion of the test on which students determined vocabulary from context clues within a sentence. Eight students were not able to identify vocabulary above a fourth grade level. Overall, seven students scored Above Average, eight scored High Average, three scored Low Average, and one student scored Below Average.

The reading Lexile scores of the students ranged from 380L to 990L, with number of words read per minute (WPM) scores ranging from 60 WPM to 210 WPM. According to MetaMetrics (2010), the average fourth grade Lexile scores range from 445L to 810L. Using this information, the researcher could see that only two students read below the 445L on the EdPerformance Benchmark test, but the rest of the class fell within the normally accepted Lexile range of a typical fourth grader.

When looking at the EdPerformance Benchmark test and the first comprehension test from the reading curriculum text, the researcher noticed a basic lack of reading comprehension strategies in the readers at the research site. When reading, “good comprehenders use a number of strategies, including activating prior knowledge, monitoring comprehension, generating questions, answering questions, drawing inferences, creating mental imagery, identifying the text structure the writer has used, and creating summaries” (Dymock, 2007, p. 161). Out of the 20 students surveyed, only nine relayed that they predicted before they read or tried to figure out unfamiliar vocabulary words in a story.

A lack of reading comprehension skills directly affected the students’ comprehension of the material. At the research site, this became an apparent issue as the school year progressed. Mrs. M found herself spending more time on guided practice
with little time for independent practice of the new material. However, Mrs. M did not have the option to change her approach to instruction. The county was very specific as to how it wanted the Math and Reading curriculum to be taught. Teachers were required to use the current curriculum, and were expected to cover a specific amount of material in order to meet the Benchmarks provided by the county. Therefore, the researcher focused her research on the specific reading comprehension strategies covered by the reading curriculum at the research site to determine how these strategies are used by students.

**Literature Search**

With such an intense focus on achieving specific test scores and achievement percentages in schools today, the researcher was interested in the comprehension strategies that readers used to comprehend text. Today’s school assessments tend to be reading based; students read to find and answer the questions on the test. Thus, a student’s reading ability directly impacts their comprehension of the reading material. It was important to the researcher to learn more about the reading process and the different types of reading comprehension strategies.

In order to understand the relationship between reading and comprehension, the researcher started by looking at the process of reading. Some believe it to be a simple process, but in reality it is a complex process that requires the use of many skills. It can also be seen as the process by which meaning is created through the interaction of text and reader (Ajideh, 2003; Alyousef, 2006). Three skills important to reading were phonological awareness, syntactic awareness, and working memory (Lesaux, Lipka, & Siegel, 2006; Lipka & Siegel, 2007; Pressley & Harris, 2008).
First, phonological awareness was the ability to understand letters and their sounds. The National Institute for Literacy (NIFL) also referred to it as, “the ability to notice, think about, and work with the individual sounds in spoken words” (Armbruster, Lehr, & Osborn, 2001, p. 1). Next, syntactic awareness was the ability to understand the structure of a language. It was a skill essential for fluent and efficient reading of text (Lipka & Siegel, 2007). Finally, working memory involved the retention of information in short-term storage while processing incoming information and retrieving information from long-term storage. Working memory allowed readers to recall what they have already read after having to decode unknown words (Lipka & Siegel, 2007).

Lipka and Siegel (2007) added spelling, word reading, and lexical access to the skills that are necessary for reading. Word reading skills were considered to be letter knowledge, phonological skills, syntactic, semantic, and memory skills. The NIFL also added phonics, fluency, vocabulary and comprehension to the list of components necessary for reading (Armbruster et al., 2001). Additional components of reading included vocabulary and schema (Tang, 1992). Schema was prior knowledge about events or objects that was used to understand the text. Together all these skills combined to form the process we refer to as “reading.”

This was important to the researcher because there were a variety of skills necessary for reading a text, and it was necessary to practice all of them in order to provide a base for comprehension. Therefore, reading was seen as a combination of skills that were used together in order to comprehend a given text. In contrast, Kamps et al., (2007) suggested that the instructional environment and instructional dosage play a large part in teaching students to read. The researcher, likewise, believed that
environment and instructional dosage did play an integral part in the acquisition of skills necessary for comprehension.

Students who were able to read the words but did not comprehend the text were not really reading. The RAND reading study group defined comprehension as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002, p. 11). Students acquired different learning strategies to help improve their interaction with and comprehension of the written text. Chamot and O’Malley (1994) defined learning strategies as “thoughts or activities that assist in enhancing learning outcomes” (p. 60). Mandler (1998) described strategies as knowledge of procedures, knowledge about how to do something — how to decode a word, comprehend a story better, compose more completely and coherently, play first base better, and so on (as cited in Pressley & Harris, 2008). According to Griva, Alevriadou, and Geladari (2009) there were three categories of learning strategies: metacognitive, cognitive, and social/affective skills.

Kolić-Vehovec and Bajsanski (2007) explained metacognitive skills as a reader's knowledge about their own reading skills as well as knowledge about different types of reading tasks and strategies. One strategy that they encouraged readers to use was comprehension monitoring. Comprehension monitoring was the process by which readers were continually checking their reading comprehension while they read. Other specific examples of metacognitive strategies were as follows:

- advance organization,
- organizational planning,
- selective attention,
- self-management,
Cognitive strategies referred to learning strategies that cognitively manipulated the material to be learned. Chamot and O’Malley (1994) listed these cognitive learning strategies:

- resourcing,
- grouping,
- note-taking,
- elaboration of prior knowledge,
- summarizing,
- deduction/induction,
- imagery
- auditory representation,
- and making inferences (p.62-63)

Social/affective strategies were when students interacted with another person in order to assist learning. This could be in groups as part of cooperative learning or when students asked questions of teachers and peers.

The researcher was focusing her action research on reading comprehension skills, which fell under the cognitive learning strategies as referenced by Chamot and O’Malley above. The NIFL and Graves, Sales, Lawrenze, Robelia, and Richardson listed monitoring comprehension, using graphic and semantic organizers, answering questions, generating questions, recognizing story structure, and summarizing as the six main comprehension strategies for reading (Armbruster et al., 2001, pp. 42-45; Graves,
Two additional strategies mentioned by NIFL were making use of prior knowledge and using mental imagery. They were not listed with the first set because NIFL deemed them only as “received some support from research” instead of as “received the strongest scientific support” (Armbruster et al., 2001, p. 47). Graves et al. (2010) added having a purpose, making inferences, predicting, and being metacognitive as other important comprehension strategies. These different strategies could be used by readers to construct meaning from the text they were reading.

The reading curriculum used by the research site was the 2008 series titled “StoryTown” by Harcourt School Publishers. There were six different themes consisting of five separate lessons. Each lesson focused on a specific reading strategy and skill; with a review of the strategies and skills on the last lesson of the theme. The main reading comprehension strategies covered by the curriculum were story structure, summarizing, graphic organizers, and monitoring comprehension.

According to Pressley and Harris (2008), weaker readers were more likely to read word by word. This simplistic strategy created some meaning, but only enough to answer very basic questions. More active readers used a strategy where they jumped back and forth within a text and often read some sections more carefully than others based on their content. According to Lenski and Nierstheimer (2002), a characteristic of a proficient reader was their flexible use of reading strategies. Many of the strategies that proficient readers used were acquired and some were learned (Lenski & Nierstheimer, 2002). This had lead researchers to question how students learned their strategies and why they applied them.
The question that was investigated at the research site was what specific reading strategies were taught by the current reading curriculum and how did students use those strategies to improve their comprehension?

First, the researcher gained permission from the research site principal to observe and interview students during their reading class. Second, the researcher met with the classroom teacher to learn more about her class and any concerns that she had about their comprehension. The teacher pre-research survey (Appendix A) helped determine any reading strategies that were being taught in the classroom.

The researcher used data from several different sources to establish a baseline of reading skills for each student. Scores from the following sources were used: beginning of year EdPerformance benchmark test, previous year’s MSA scores, teacher observations and researcher observations. Weekly StoryTown comprehension tests, interviews, surveys, and discussions were used to obtain data and monitor student work and progress throughout the project.

The EdPerformance benchmark tests were used to determine each student’s Lexile reading score and also provided a breakdown score of comprehension of different types of texts. Since the action research occurred so early in the year, the previous year’s MSA scores provided a baseline against which to compare the EdPerformance benchmark test. Teacher and researcher observations were used to determine which area of comprehension students struggled with the most. By using a combination of these scores and observations to create a baseline, it helped the researcher determine
the beginning level of each student’s reading ability and comprehension skills.

Weekly StoryTown comprehension tests assessed the student’s knowledge over the reading text and provided data over the accuracy of the strategies they utilized. The researcher interviewed students after the weekly tests to determine which strategy they used while reading the text and taking the test. Surveys and discussions were used throughout the action research to learn more about student knowledge of strategies and their application to text. Teacher and researcher observations helped document the strategies being taught and the student responses during the lessons.

At the beginning of the school year, the researcher administered a student pre-research survey (Appendix B) to assess student attitude towards reading and usage of previous strategies learned in third grade. Appendix C was used to determine how often students used different strategies while reading. Personal student interviews at the beginning of the year also allowed the researcher to determine how familiar students were with using and identifying reading comprehension strategies.

The researcher observed students daily for instances of students using the strategies and kept anecdotal notes. Students worked individually and in groups to practice using the reading comprehension strategies as provided by the StoryTown reading curriculum. Student interviews and questionnaires were administered periodically to check for knowledge and application of reading comprehension strategies. After 15 weeks the researcher administered a final survey (Appendix D) to the teachers to determine which strategies they felt they had covered through the StoryTown lessons. The researcher also gave the students a survey (Appendix C) to determine any final changes in their use and knowledge of reading comprehension strategies.
Students took a final EdPerformance benchmark test at the end of the first semester. The researcher compared the beginning EdPerformance benchmark scores to final EdPerformance benchmark scores. The researcher also administered a questionnaire about reading comprehension strategies students used on the EdPerformance benchmark test. The researcher hoped to see an overall increase in the use of reading strategies on a daily basis as well as an increase in EdPerformance scores.
The main goal of the researcher was to determine the specific strategies taught by the StoryTown reading curriculum at the research site and determine if these strategies were used by students to improve their comprehension. According to the National Reading Panel and RAND Reading Study Group, many U.S. students have not developed the comprehension skills crucial to success in this century (as cited in Graves et al., 2010). Without consistent and meaningful instruction of a program or strategy, students cannot improve their reading comprehension. Both the county and the research site are still looking for a way to improve the reading comprehension of their students.

Possible Solution

One possible solution was a program called Accelerated Reader (AR). AR is a program which combines a literature-based reading program with the use of a computer, and promotes independent reading (“Accelerated Reader”, 2009). Students read books which have been assigned a point value based on length and the Flesch-Kincaid reading index to determine readability (Johnson & Howard, 2003). After reading the book, students take a test on the computer. The test consists of multiple choice questions about important facts in the book. After students take a test, reports can be generated listing the AR points earned, number of tests taken, number passed, average grade level of books read, and average percentage achieved on the tests taken. Johnson and Howard (2003) found that several research studies differ in their findings.
of the actual results of AR. While some researchers found that schools that used AR increased their standardized test scores, others found that it did not affect test scores at all.

Although the debate continues over the effectiveness of AR, the researcher dismisses this program because of a lack of funding at the research site. The school building was brand new this year and already has the EdPerformance progress monitoring system in place. AR would cost $10.00 per student and would involve a one-time fee of $1,499.00, with possible $600 update fees in the future. This includes Accelerated Reader software, software/technical manual, installation guide, testing instructions, and access to over 100,000 quiz titles. After the first year it costs $4.00 per student (per year) and includes software upgrades, updates, expert technical support, district-wide management, and reporting access. Overall this would cost the school $6,639.00 for the first year and up to $2,656.00 for each following year. Unfortunately, these funds were not available at the time.

A second option was the Transactional Strategy Instructional approach (TSI). This is an “instructional approach that forefronts the teaching of a small set of research-based strategies within the context of collaborative text discussions” (Koskinen, 1995). This method helps the readers develop responsibility for using strategies to construct meaning of a given text. TSI can be introduced as whole-class, small-group, or even one-on-one; it can also be student or teacher directed. It is based on studies of proficient readers that determined that good readers rely on strategic resources and knowledge that they have learned. The strategies of TSI are taught within the context of real reading events. They are not practiced in isolation, but are blended into “meaning-oriented text discussions” (Brown, 2008). At the beginning of the year, the teacher
models and explains things, but gradually more of the responsibility shifts to the students. Eventually the students are able to model strategies for each other. In a study by Brown (2008), she found that students being taught the TSI model were better able to verbally express which strategy they used to construct meaning and why they chose that particular strategy.

Although this model of instruction was research based and appropriate for the grade level at the research site, the researcher dismissed it as an immediate option based upon the inability to implement a new program without county approval. The school is overseen by the county, who is in charge of 50 other schools within the county also. This system means that the county expects all schools to use the same curriculum and teach subjects the same way. There are a few exceptions to this, but the majority of the elementary schools throughout the county teach the curriculum that is provided by the county. It would take months for the county board to look at the research on the TSI model and figure out how to implement and align it with the existing curriculum across the county. Eventually TSI could be an instructional strategy used, but only after county approval and implementation.

A final option for the district was the Reading Comprehension Booster software by Merit Software. It is a computer-based program that “provides detailed coverage of the core competencies students require to succeed. Concepts in reading, writing, grammar, vocabulary and math are covered from the basics to higher levels” (Why Merit Gets Results, 2010). The students take a pretest to find their areas of strength and weakness. After their assessment, the students read texts and then answer reading skill questions. They get immediate feedback in the form of a reward graphic or a hint toward the correct answer. Students are able to control the reward graphics and sounds.
For each text on which the student does well, he or she receives a wrap-up crossword based on vocabulary in the previous story or stories. Students are not able to get the wrap-up crossword if they do not pass the comprehension questions. Random pools of reading selections minimize the chance that they will see the same passage twice. A final exam verifies that students have improved their reading skills. The program also provides cumulative and current session scores. Students see their scores when they complete each round.

Although this is an engaging program, the researcher dismissed it based on a lack of research. The What Works Clearinghouse (WWC) had deemed that the program had been reviewed with no studies that meet WWC evidence screens. The only study the researcher found was done in 2004 in a middle school in West Virginia. This program did not actually teach comprehension strategies, but rather measured a student’s comprehension of a text. Students at the research site were already able to take tests to gauge their comprehension through the EdPerformance testing system. Therefore, this program would be a repeat of this existing program.

The researcher had introduced three options focusing on developing the comprehension skills of students. Those programs were Accelerated Reader, transactional strategy instructional approach and the Reading Comprehension Booster software by Merit Software. Each of the aforementioned programs or methods approached the aspects of reading and comprehension in a unique way, but none were a good fit for the research site. The programs or methods were rejected by the researcher on the basis of a lack of funding, inability to implement a new program without county approval and lack of research on the program.

A solution proposed by the researcher is a focus on the direct teaching of reading
comprehension strategies already in the existing StoryTown reading curriculum. Training for teachers would be a 30-45 minute workshop during a professional development day or a special staff meeting, with the county having the ability to distribute the different reading comprehension strategies that are presently covered with each section in the StoryTown books as well as the research showing how important it is for students to actively use the strategy. This would allow teachers from different grade levels to see which strategies are taught to which grades and if there are any main strategies that they feel the curriculum is not adequately addressing. It also gives the county control of what is being taught, without having to change the existing curriculum.

Some of the main reading comprehension strategies as identified by Chamot and O’Malley (1996), NIFL (Armbruster et al., 2001) and Graves et al. (2010): monitoring comprehension, using graphic and semantic organizers, answering questions, generating questions, recognizing story structure, summarizing, making use of prior knowledge, using mental imagery, having a purpose, making inferences, predicting, and being metacognitive are already being taught by the StoryTown curriculum and highlighted by teachers. However, it is important that the county stress the importance of the reading strategies so that teachers continue to focus on them.

Most often students learn comprehension reading strategies from direct teaching. According to Lenski and Nierstheimer (2002, p. 8), students are more likely to use strategies if they need to know them for a reading task. However, isolated strategy instruction does not help students learn how to know when to use certain strategies. Students need to actively use the strategy on a reading task in order to learn it successfully. A study of five widely used core reading programs by Dewitz, Jones, and
Leahy (2009) found that over 70% of the instructional moves during reading of the text were questions, with little modeling or guided practice for students. All the reading programs included modeling of skills and strategies by teachers, but seldom asked students to model the skill or strategy themselves. Therefore, it is important for teachers to understand not only their role of teaching the strategy, but more importantly, providing a relevant reading task on which the students can practice using the strategy.

**Action Plan Details**

In order to implement the researcher’s goals, an Action Plan consisting of 15 weeks was created. Within those 15 weeks the data was collected and organized, student participants selected, reading comprehension strategies taught, participants observed, data collected, and final observations made. The Action Plan was as follows:

Week One: Obtained permission from the research site principal and began to gather baseline data on student participants. Gave teachers a survey about reading comprehension strategies being taught in the classroom (Appendix A).

Week Two: Met student participants and administered beginning reading attitude survey (Appendix B). Observed students during class and began to make observations. Lesson One from StoryTown focusing on story structure was introduced.

Week Three: Had students take Benchmark test on EdPerformance in order to obtain baseline reading scores and Lexile scores for each student. Lesson One
comprehension test was given and Lesson Two focusing on story structure, character’s traits, and motivations was introduced.

Week Four: Lesson Two comprehension test was taken and Lesson Three over answering questions and compare and contrast was introduced.

Week Five: Students were split into new reading groups based on EdPerformance Benchmark scores. Students were given a pre-research survey (Appendix C) about the different reading strategies and how often they used them. They also participated in discussions about how they used the strategies. During this week, students focused on identifying text features and took the Lesson Three comprehension test. They also reviewed compare and contrast and answering questions.

Week Six: Students took the comprehension test over Lesson Four and participated in a Reader’s Theater (Lesson Five) which reviewed all the skills and strategies from Lessons One through Four: character’s traits and motivations, compare and contrast, story structure and answering questions.

Weeks Seven through Ten: Students began Lessons Six and Seven over conflict and resolution as well as monitoring comprehension by rereading, then took the comprehension test over Lessons Six and Seven. Author’s purpose and perspective and summarizing were introduced in Lesson Eight and then assessed.
Weeks Eleven and Twelve: Lessons Nine and Ten covering conflict and resolution, author’s purpose and perspective, monitoring comprehension: reread and summarize, and predicting were taught and assessed.

Weeks Thirteen and Fourteen: Students learned about text structure and graphic organizers in Lessons Eleven and Twelve. The comprehension tests over both lessons were also taken.

Week Fifteen: The researcher compiled data and administered final surveys for students and teachers (Appendices C and D), students took a final EdPerformance test. Students were introduced to draw conclusions and monitoring comprehension through reading ahead in Lesson Thirteen.

In week one the researcher obtained written permission from the principal and identified the students to be worked with. The researcher interviewed teachers about reading comprehension strategies being taught within the classroom (Appendix A). Finally, the researcher began to gather baseline data on the students.

During week two the researcher met the students and administered the beginning reading attitude survey (Appendix B). During this week the researcher started to observe the students during their classes. In week three, students took an EdPerformance benchmark test on the computer. During weeks four through fourteen the researcher observed students while they worked in both small and large group settings. Students learned a variety of reading strategies and skills throughout the thirteen lessons covered by the StoryTown reading curriculum. Students also completed a survey of reading strategies (Appendix C). Additionally, the researcher and classroom
teacher observed and recorded how and when the students used the reading comprehension strategies. Students also completed questionnaires and participated in discussions about strategy usage.

During week 15 students took a final EdPerformance benchmark test on the computer. Finally, the researcher administered a final teacher and student survey (Appendix C and D) over reading comprehension strategies. After all the data was gathered, the researcher had a clearer picture of the specific strategies taught by the StoryTown reading curriculum and how often these strategies were used by students to improve comprehension.
Action Research Report

Chapter Five- Results and Next Steps

The purpose of this Action Research was twofold. First, the researcher determined which reading strategies were taught by the reading curriculum at the research site. Then, the researcher observed how students used these strategies to improve their comprehension. The following are the changes that occurred during the research project, the results of the researcher’s collection of data, and suggestions for further study.

Research Changes

There were several changes that occurred during the research project. Initially, the researcher wrote the proposal to collect data from the students who received the lowest scores on state testing from the previous year. Originally this homogenous grouping, by test scores, was also the school’s plan for reading groups. However, when the school year began, each teacher ended up teaching reading to their homeroom and students were not grouped by test scores. Five weeks into the school year, the county decided to go back to their original plan of homogenous grouping and regrouped students based on their EdPerformance Benchmark scores (instead of the previous year’s state testing scores). The majority of students that the researcher had already
worked with for five weeks scored well on the EdPerformance Benchmark test. Therefore, she continued to work with and collect data from this group. Thus, the research project focus changed from low achieving students to students who were already meeting benchmark standards.

In addition, the researcher had originally planned to teach lessons over all of the common reading strategies. However, once in the research classroom, the classroom teacher preferred that the researcher solely observe since the county was very particular about how lessons were to be taught during reading. Therefore, the researcher focused her research on the four strategies that were most prominent within the curriculum and monitored student usage of these strategies.

Research Results

Pre and Post Survey

The researcher conducted a 15-week collection of data over the strategies that were directly taught by the reading curriculum and observed how often the students used these strategies. The main reading comprehension strategies covered by the curriculum were story structure, summarizing, graphic organizers, and monitoring comprehension. The researcher arrived at the conclusion that these were the four main strategies after looking through the first fifteen lessons of the reading text as well as the scope and sequence chart provided by the reading curriculum.

The researcher observed and collected data over Lessons 1 through 13 in the reading curriculum. The typical schedule for each lesson was a day of vocabulary introduction, a day of strategy instruction, and two days of reading and interacting with the story. This was followed by a day to practice the strategy and then students took an
STUDENT USAGE OF CURRICULUM TAUGHT READING STRATEGIES

assessment over the story. Some lessons were shorter and some were longer, depending on the strategy difficulty and type of story.

Below is an overview of the strategies and skills covered in each lesson:

<table>
<thead>
<tr>
<th>StoryTown Lesson</th>
<th>Skill Covered</th>
<th>Strategy Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>One and Two</td>
<td>Character’s Traits and Motivations</td>
<td>Use Story Structure</td>
</tr>
<tr>
<td>Three and Four</td>
<td>Compare and Contrast</td>
<td>Answer Questions</td>
</tr>
<tr>
<td>Five</td>
<td>Character’s Traits and Motivations and Compare and Contrast (review)</td>
<td>Use Story Structure and Answer Questions (review)</td>
</tr>
<tr>
<td>Six and Seven</td>
<td>Plot: Conflict and Resolution</td>
<td>Monitor Comprehension: Reread</td>
</tr>
<tr>
<td>Eight and Nine</td>
<td>Author’s Purpose and Perspective</td>
<td>Summarize</td>
</tr>
<tr>
<td>Ten</td>
<td>Plot: Conflict and Resolution and Author’s Purpose and Perspective (review)</td>
<td>Monitor Comprehension: Reread and Summarize (review)</td>
</tr>
<tr>
<td>Eleven and Twelve</td>
<td>Text Structure: Cause and Effect</td>
<td>Use Graphic Organizers</td>
</tr>
<tr>
<td>Thirteen and Fourteen</td>
<td>Draw Conclusions</td>
<td>Monitor Comprehension: Read Ahead</td>
</tr>
</tbody>
</table>

Although each lesson highlighted a specific strategy, there were still activities during each lesson that worked with other strategies. Additionally, portions of the lessons over skills actually helped reinforce these strategies. For example, during Week 13, the skill covered was Drawing Conclusions. In order to draw conclusions, the students were first asked to summarize the story that they had read; thus reinforcing the reading strategy of Summarizing.

Out of 75 days possible for the 15 weeks, eight were calendar holidays, three were inclement weather, and two days the researcher had to be gone. This left a total of 62 days of observations. This is the number of days of instruction that the pie chart below...
is based off. Each day the researcher observed the class, she decided which of six categories was covered by the lesson taught that day. The categories she used were the four reading strategies, testing, and vocabulary.

![Pie chart showing percentages of time spent on different categories](image)

The data showed that 43% of class days were spent on testing and vocabulary instruction with the remaining 57% of class days focusing on lessons covering the four main strategies. Initially, the researcher was surprised that testing took up 21% of class days. However, this meant that on average, one day a week was devoted to testing. This number also included four days of county required testing and nine comprehension tests over the lesson taught that week. Once that information is taken into account, 21% of class time for testing does not seem overwhelming.

The first week of the school year all fourth grade students were given Appendix B to determine their attitude toward reading and basic usage of previously taught reading strategies. Ninety-seven percent of students overall responded that they were good
readers and liked to read. Only 17% of students skipped unknown words while reading and then used context clues in order to figure out the meaning of the unknown word. Over 88% looked at the pictures to predict what would happen in the story. This showed the researcher that the majority of fourth grade students enjoyed reading and generally approached it in a positive manner. It also showed that students were able to apply the prediction strategy (taught in previous grades), but that they failed to use a strategy to comprehend words during reading.

All four fourth grade teachers were given Appendix A at the beginning of the year to determine which strategies they taught. Of the three teachers who responded, all three taught the strategies of note-taking, identifying new vocabulary, making predictions from predictions or text, making inferences from information provided in the story, summarizing reading of text, and making personal connections to text. Only two of the three teachers taught students to gather prior knowledge and skip unfamiliar words and come back to them. Finally, none of the teachers taught students to use outlines.

After splitting into new groups in week 5, students were given Appendix C to determine how often they used ten common reading comprehension strategies: monitoring comprehension, using graphic organizers, asking and answering questions about the text, identifying story structure, summarizing, making use of prior knowledge, imagining story, setting a purpose for reading, making inferences and using context clues, and making predictions.
Question 1 on Appendix C was “How often do you use the strategy of monitoring comprehension or being metacognitive (stopping to think about what you read, reread, or read ahead)” with the answers of Always, Sometimes, and Never. In the survey given on Week 5, seven responded Always and on Week 15 eight students responded that they used the strategy Always. Twelve students responded Sometimes in Week 5, with only 10 responses on Week 15. Finally, at the beginning no one responded Never, but there was one student response for Never at the end. The data shows that there is not a significant change from the Week 5 to Week 15 survey, but overall this strategy is being used by the majority of students. This was not surprising to the researcher, since 22% of class days were spent on lessons covering the strategy of monitoring comprehension.
In Question 2 students were asked “How often do you use the graphic organizers?” In Week 5, three students responded Always; with only one response in Week 15. The majority of students responded Sometimes, 14 at the beginning and 16 at the end. Two students responded Never for both the Week 5 and 15 surveys. The data from Question 2 shows that the majority of students used this strategy sometimes, but out of all the strategies had the least overall number of always responses. The data also showed that this was the strategy that was taught the least amount of times during the 15 week period.

According to a study done by Ermis (2008), it is important for teachers to “implement comprehension strategies for informational text that correlate to each expository text structure, enhance vocabulary knowledge, and build and activate prior knowledge.” In the opinion of the researcher, it is possible that students did not use this strategy as frequently as others because the lessons were based off of stories, not expository texts. In a different study by Armbruster, Anderson and Meyer (1991), they found that instruction using a graphic organizer was a more effective instructional
technique than the instruction that was suggested in the teacher’s edition of the textbook. So even though students did not use this strategy as frequently as others, research still deems it an effective strategy for comprehension.

Question 4 asked students how often they used the story structure to figure out what kind of story they were reading (biography, poetry, historical fiction, etc.). On the Week 5 survey only nine students responded Always, with an increase to 14 students by Week 15. Eight students responded Sometimes on the first survey with a decrease to five students by the Week 15 survey. Two students said they never used story structure at the beginning with a decrease to zero students on the end survey. The data shows that students used this strategy more often in Week 15 than in Week 5. This could be because they were unaware of the different types of stories at the beginning of the year. It could also be because each lesson in StoryTown focuses on a specific story structure and highlights several characteristics unique to that story structure. The story structure strategy was covered in 16% of class days over the 15 weeks. The researcher found it
interesting that student responses in Week 15 were so high because out of the four strategies, it was taught less than both monitoring comprehension and summarizing.

Finally, in Question 5 students were asked how often they summarized while reading. In Week 5, three students responded Always. This increased to five students by Week 15. Fifteen students responded Sometimes, falling to 14 students in the end. One student responded Never at the beginning, but at the end there were no responses of Never. The data shows an increase in the students who used it always and a decrease in the students who responded they never used it.

According to Dymock and Nicholson (2010), knowing how to summarize the main ideas has a positive impact on comprehension. Usually a summary is concise and only gives the main points. Their research shows that the ability to summarize a text can help to enhance the reader’s comprehension of the text.

One observation that the researcher noted in her research, was that even though the students thought they knew what each strategy was at the beginning of the year, as
the year progressed and they worked with each strategy, they actually became more aware of how they used the strategies. The researcher also felt that students circled an answer on the first survey without actually stopping to think about how often they used each strategy. In the opinion of the researcher it was because they didn’t have an example to refer back to. When students were given the survey in Week 15, they were able to think back about specific activities and tests given over the 15 weeks and remember how often they actually used each strategy. The researcher felt that the end of year survey was more accurate in how often students used each of the different strategies.

Through her interviews each week the researcher observed that the strategy that was used the most fluctuated from week to week. For example, in Week 4 students learned about the Revisit Strategy. The researcher categorized this as a metacognitive strategy because students stop to think about what they read and figure out if it answered their questions. After the weekly comprehension test students were interviewed by the researcher about which strategies they used while reading the story and taking the test. Seventeen of the 19 students used the revisit strategy. Therefore, the strategies that were the focus in that lesson that week were more likely to be the ones used immediately. This was also the case in Week 9 with summarizing and Week 5 with story structure. Although the Revisit Strategy was used quite regularly it was never that high again on a survey.

**Summary**

Overall, the researcher found that the majority of class time was spent teaching the four main strategies highlighted by the present reading curriculum. These
strategies were monitoring comprehension, graphic organizers, story structure, and summarizing. She also found that vocabulary played a large part in the curriculum. Although vocabulary is important for understanding of a story, it is not considered a strategy for reading by the NIFL and Graves et al. (Armbruster et al., 2001; Graves et al., 2010).

The researcher also found that students were using the strategies they were taught by the curriculum. Only four percent of responses were Never on the post-survey. This showed the researcher, that no matter the frequency, students were using the strategies in some capacity. Overall, she would expect to see the Always numbers increase and the Sometimes numbers decrease.

Table 1

Percent Change between EdPerformance Scores of Students

<table>
<thead>
<tr>
<th>Student</th>
<th>September 2010 EdPerformance Benchmark Test</th>
<th>January 2011 EdPerformance Benchmark Test</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2982</td>
<td>2854</td>
<td>-4.29</td>
</tr>
<tr>
<td>2</td>
<td>2874</td>
<td>2918</td>
<td>+1.53</td>
</tr>
<tr>
<td>3</td>
<td>2804</td>
<td>2804</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>2770</td>
<td>2702</td>
<td>-2.45</td>
</tr>
<tr>
<td>5</td>
<td>2767</td>
<td>2946</td>
<td>+6.49</td>
</tr>
<tr>
<td>6</td>
<td>2760</td>
<td>2658</td>
<td>-3.69</td>
</tr>
<tr>
<td>7</td>
<td>2707</td>
<td>2583</td>
<td>-4.58</td>
</tr>
<tr>
<td>8</td>
<td>2701</td>
<td>2566</td>
<td>-4.99</td>
</tr>
<tr>
<td></td>
<td>Student 1</td>
<td>Student 2</td>
<td>Change</td>
</tr>
<tr>
<td>---</td>
<td>-----------</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>9</td>
<td>2632</td>
<td>2838</td>
<td>+7.82</td>
</tr>
<tr>
<td>10</td>
<td>2616</td>
<td>2454</td>
<td>-6.19</td>
</tr>
<tr>
<td>11</td>
<td>2379</td>
<td>2422</td>
<td>+1.80</td>
</tr>
<tr>
<td>12</td>
<td>2299</td>
<td>2606</td>
<td>+13.35</td>
</tr>
<tr>
<td>13</td>
<td>2246</td>
<td>2208</td>
<td>-1.69</td>
</tr>
<tr>
<td>14</td>
<td>2689</td>
<td>2759</td>
<td>+2.60</td>
</tr>
<tr>
<td>15</td>
<td>2603</td>
<td>2745</td>
<td>+5.45</td>
</tr>
<tr>
<td>16</td>
<td>2702</td>
<td>2630</td>
<td>-2.66</td>
</tr>
<tr>
<td>17</td>
<td>2811</td>
<td>2710</td>
<td>-3.59</td>
</tr>
<tr>
<td>18</td>
<td>2682</td>
<td>2613</td>
<td>-2.57</td>
</tr>
<tr>
<td>19</td>
<td>2479</td>
<td>2546</td>
<td>+2.70</td>
</tr>
</tbody>
</table>

Initially the researcher had assumed that student scores on the EdPerformance Benchmark tests would increase significantly after students learned and then practiced the specific reading strategies. However, this was not what the researcher’s data showed. Table 1 shows that only eight students scored higher on the second EdPerformance test, while nine scored lower than the previous Benchmark test and one student stayed the same. Although the researcher was surprised by this data, she was glad to see that many of the students whose scores increased were by a larger margin than those whose scores decreased.

**Suggestions for Further Study**

Upon completion of her 15-week project, the researcher has concluded that the StoryTown curriculum highlights four reading comprehension strategies, monitoring comprehension, using graphic organizers, story structure and summarizing. While there
was a great deal of data collected about the reading curriculum, there are still many aspects of reading strategies that could be the focus of additional study in the future.

For example, one additional suggestion for further study is over the usage of graphic organizers. The researcher observed that students were taught lessons over how to make graphic organizers and then used them for in-class activities, but there was never a blank template offered for tests or free reading time. The data showed that it was the strategy with the lowest response of always in both Week 5 and 15. The researcher would be interested to see if usage of the graphic organizer strategy would increase if students were offered blank templates.

Although the researcher focused solely on the reading curriculum taught during the time allotted for reading, there are other subjects during the day during which the reading strategies are being used. Another study could be done to observe how different reading strategies are applied in the different subjects.

Further study could also be done over the usage of strategies between students of different skill levels. If each teacher teaches a homogenous group based on test scores, teachers would be able to determine which strategies were used most often and see if a particular strategy is used most by a specific group. This could impact the importance of specific strategies and lessons in the curriculum for the different ability levels.

The researcher is looking forward to sharing the results of her data collection with Mrs. M. She believes Mrs. M will find the amount of class time devoted to each strategy interesting and believes Mrs. M will devote more time to graphic organizers. The researcher’s information will also be able to give Mrs. M a better picture of which strategies her students use the most. It is also important to share this information with
the other fourth grade teachers, so they can see if they are seeing the same usage of the strategies in their own classrooms.

In the future, the researcher plans on evaluating her own school’s reading curriculum to determine which reading strategies are the focus. She also plans on keeping track of the type of lesson and figuring out the percentage of classes covering each strategy. In the opinion of the researcher, knowing which strategies are contained within the curriculum gives teachers a better overall picture of their students’ learning.
References


Appendix A

1. Circle the following strategies/skills or activities that you teach or complete with your students:

- Note taking/Outlining
- Use graphic organizers
- Identifying new vocabulary
- Making predictions from pictures or text
- Make inferences from information provided in the story
- Gather prior knowledge
- Summarize reading of text
- Make personal connections to text
- Discuss story structure
- Ask questions while reading

Other ________________________________

2. Do you see a common problem with struggling readers and comprehension?

3. Do you see struggling readers using any of the above strategies/skills (without being prompted by a teacher) to comprehend text?
Appendix B

1. Do you like to read?

2. Do you think you are a good reader?

3. What do you do when you are reading and don’t know a word in a sentence?

4. Do you look up new words in the dictionary to find out what they mean?

5. Do you look at pictures and predict what will happen in the story?

6. What are some of your favorite things to read about?

7. Do you understand stories better when they are read to you or when you read them by yourself?
Appendix C

When reading how often do you use the following strategies:

1. Monitoring comprehension or being metacognitive (stopping to think about what you read, reread, read ahead)
   
   Always  Sometimes  Never

2. Using graphic organizers
   
   Always  Sometimes  Never

3. Asking and answering questions about what you are reading
   
   Always  Sometimes  Never

4. Figure out what kind of story you are reading (biography, poetry, historical fiction)
   
   Always  Sometimes  Never
5. Summarizing
Always   Sometimes   Never

6. Making use of prior knowledge (what you already knew about the story)
Always   Sometimes   Never

7. Imagine the story in your head
Always   Sometimes   Never

8. Set a purpose for reading
Always   Sometimes   Never

9. Making inferences and using context clues to figure things out
Always   Sometimes   Never

10. Predicting things about the story
Always   Sometimes   Never
Appendix D

1. Did you teach the following strategies from the StoryTown curriculum?

- monitoring comprehension
- using graphic and semantic organizers
- answering questions
- generating questions
- recognizing story structure
- summarizing
- making use of prior knowledge
- using mental imagery
- having a purpose
- making inferences
- predicting
- being metacognitive/planning reading
- other_______________________

2. Is there a specific strategy above that students struggle with the most?

3. Is there a specific strategy above that students use the most?