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ABSTRACT

This report describes a program for advancing reading comprehension skills. The targeted population consisted of second and fourth grade students in an affluent northern suburb of a large midwestern community. The problem of a lack of comprehension skills was documented through teacher observations, student and parent surveys, comprehension checklists, teacher journals, and reading inventories. Analysis of probable cause data indicated that many factors influence a child's level of reading comprehension. These can include poor questioning techniques by the teacher, a lack of student motivation, and a lack of self-monitoring during reading. Teachers need to directly teach comprehension strategies to their students. Instruction needs to go beyond decoding. A review of solution strategies by knowledgeable others, combined with an analysis of the problem setting, resulted in the development of several reading comprehension interventions. These include using literal, inferential, and critical questions, teaching students how to self-monitor their reading, increasing direct instruction of comprehension strategies, and implementing a balanced reading program. Post intervention data indicated an increase in students' use of various reading comprehension strategies. This lead to a greater overall level of understanding during reading for the targeted students. Contains 26 references, 1 figure and 14 tables of data. Appendixes contain a student survey and a parent questionnaire. (Author/SR)

IMPROVING READING COMPREHENSION

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We dedicate this research project to Dr. Sue Marcus
for her time, patience, and sense of humor.

Abstract

This report describes a program for advancing reading comprehension skills. The targeted population consisted of second and fourth grade students in an affluent northern suburb of a large Midwestern community. The problem of a lack of comprehension skills was documented through teacher observations, student and parent surveys, comprehension checklists, teacher journals, and reading inventories.

Analysis of probable cause data indicated that many factors influence a child's level of reading comprehension. These can include poor questioning techniques by the teacher, a lack of student motivation, and a lack of self-monitoring during reading. Teachers need to directly teach comprehension strategies to their students. Instruction needs to go beyond decoding.

A review of solution strategies by knowledgeable others, combined with an analysis of the problem setting, resulted in the development of several reading comprehension interventions. These include using literal, inferential, and critical questions, teaching students how to self-monitor their reading, direct instruction of comprehension strategies, and a balanced reading program.

Post intervention data indicated an increase in students' use of various reading comprehension strategies. This lead to a greater overall level of understanding during reading for the targeted students.

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CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of Problem

The targeted group of second and fourth graders exhibit inadequate skills in the area of reading comprehension despite being taught a variety of instructional strategies and techniques. Evidence for existence of the problem includes teacher observation, standardized test results, teacher-made tests and anecdotal notes.

Immediate Problem Context

The research was conducted in an elementary school in an affluent northern suburb of a large Midwestern city. This school has an estimated enrollment of 468 students with an average class size of 18. The ethnic makeup of the students is 90.4% Caucasian, 9.2% Asian/Pacific Island descent, and .4% is Hispanic. Of this population, 4.9% are of limited English proficiency and are receiving services from an English as a second language (ESL) teacher. Low income students constitute .2% of the population. Low income students are from families receiving public aid, being supported in foster homes with public funds, or eligible to receive free or reduced-priced lunches. The attendance rate is 96.7%. The student mobility rate is 10.3%. The mobility rate is based on the number of students who enroll in or leave school during the school year.

The faculty and staff at the three elementary schools within the district consist of 145 staff members, all of whom are Caucasian. Females comprise 88.3% of the teaching staff, while 11.7% of the staff is male. The average experience level of the teachers is 13.9 years. Teachers with Master's degrees make up 44.4% of the staff. The pupil-teacher ratio is 19.4 to 1. The average salary of teachers is $40, 722. The average administrative salary is $71,351. There are five learning and behavior disability teachers, two speech teachers, and one English as a second language (ESL) teacher.

The average elementary school day consists of 48 minutes of mathematics, 25 minutes of science, 168 minutes of language arts, and 20 minutes of social science. A literature-based reading series is used and incorporated with a whole-language philosophy. There is also a reading intervention program called Reading Boost. This is a program for first and second grade students who display deficits in reading as determined through a screening test. There are a variety of teaching methods utilized in this school. These include a whole language approach, a phonics based approach and a literature based approach. Manipulatives are used in math and science in addition to having a weekly science lab.

The School District

Four separate elementary school districts service the surrounding community. There are three elementary (K-5) buildings and a junior high

school in this district. All four schools are governed by a seven member school board, one superintendent and one assistant superintendent. Each school in the district has one principal. One elementary school also has an assistant principal due to the large student population.

The district is committed to excellence in its educational program. It is the goal for each child to experience success in a school committed to teaching, learning, and caring. There is a high percentage of parent involvement. One hundred percent of the parents or guardians make at least one contact with the student's teacher during the school year.

The Surrounding Community

The district is located in a town of 32,862 people according to the 1990 census. Of this population, 91.7% are Caucasian, 6.4% are Asian , 1.7% are Hispanic, and 0.2% are Black. The median age of the community is 40.9 years of age and 55.1% of the adult population are college graduates. The median income is $73,362 per household with 1.8% of the population below the poverty level.

The town is considered a bedroom community with most residents of the community working elsewhere. The town has a commuter link to a major city by a train system and expressways. The majority of students have parents who are in professional occupations. The socioeconomic status is generally upper middle class and the community as a whole is considered affluent.

Regional and National Context of the Problem

One of the greatest challenges facing reading teachers in our country is that of helping students achieve an acceptable level of comprehension. "Constructing meaning is important because reading at this early level is a new enterprise, and children must be made aware that reading is always directed toward meaning" (Anderson, Hiebert, Scott, & Wilkinson,1985).

Young readers do not view reading as a process of gaining understanding. "Many average to below average middle level students think reading an assignment requires them to simply read the words. Often, they will "read" an entire text and understand nothing of what they read. These students belief the myth that good readers never reread, question, or ponder carefully" (Thompson, 1993). Many readers perceive their reading ability to be sufficient and are not aware of their own weaknesses. These readers do not see a need for improvement (Hunt, 90).

For these reasons, teachers need to gain the knowledge necessary to provide their students with direct instruction of comprehension skills. There is no purpose for reading unless we are attempting to make some sense of the words before us. Teachers of reading would agree that not only is reading comprehension the most important facet of reading but it is the part with which the students often experience difficulty. (Anderson, Hiebert, Scott, & Wilkinson, 1985).

CHAPTER 2

PROBLEM EVIDENCE AND PROBABLE CAUSES

Problem Evidence

Evidence for the existence of poor reading comprehension at the site was documented through a student survey (Appendix A), a parent questionnaire (Appendix C), and an individual reading inventory (Appendix B). The targeted students were in the regular education classrooms.

The students were asked to respond to three questions having to do with reading. First, the students were asked what they do when they don't understand something they read in a story. Second, the students were asked what they do when they can not answer questions about something they have read. Lastly, the students were asked what they need to do to be a better reader.

Table one illustrates that 54% of students ask for help when they do not understand what they have read in a story. It also shows that 0.6% of the students stop and think about what they need to do on their own. The survey responses also revealed that 26% of students reread the material when they did not understand it, and 14% do not know what to do.

Table 1
Responses to First Question on Student Survey
When you can't understand something in a story, what do you do?

Student Response	Frequency of Response September
Ask for help	54%
Reread	26%
I don't know	14%
Think about it	06%

Table two shows that 49% of the students ask for help when they can not answer a question about something they have read. Only 02 percent of the students responded that when they have trouble answering a question, they stop and think about what they should do. Of the targeted students, 28% reported that they look up the answer to a questions they can not answer, and 26% reported that they guess at an answer.

Table 2

Responses to Second Question on Student Survey
When you can't answer a question about something you have read, what do you do?

Student Response	Frequency of Response September
Ask for help	44%
Look up answer/ reread	28%
Think about it	02%
Guess/I don't know	26%

Table three reveals the percentage of students who responded that they need to practice or read books at their grade level to become better readers. Twenty percent of the students surveyed responded that they need to learn how to read more words by sight in order to be better readers. Of the targeted students, 64% responded that they need to practice to become a better reader, 12% responded they do not know what to do to become a better reader, and 04% responded to be a better reader you need to get help.

Table 3

Responses to Third Question on Student Survey

What things do you need to do to be a better reader than you are right now?

Student Response	Frequency of Response September
Learn more words	20%
Get more help	04%
Practice	64%
I don't know	12%

The parents were given surveys, in which they were asked to respond to three questions having to do with their child's reading. First, the parents were asked if they think their child likes to read. Second, the parents were asked if they think their child understands what they read. Lastly, the parents were asked how often their child reads at home.

Table four shows that 71% of parents perceive their children as interested in reading. Only 14% of parents indicated that they think their

children do not like reading, and 15% percent answered that their child likes to read at times.

Table 4

Response to First Question on Parent Survey
Do you think your child likes to read?

Parent Response	Frequency of Response September
Yes	71%
At Times	15%
No	14%

Table five indicates that 73% of parents surveyed think that their children do comprehend what they read. Only 27% of parents were unsure of their child's comprehension abilities.

Table 5

Response to Second Question on Parent Survey
Do you think your child understands what he or she read?

Parent Response	Frequency of Response September
Yes	73%
At Times	27%
No	00%

Table 6 illustrates that 65% of parents responded that their children read almost every night at home. About one third of the parents surveyed responded that their child reads less than six nights a week.

Table 6

Response to Fourth Question on Parent Survey
How often does your child read at home?

Parent Response	Frequency of Response September
0-3 nights	15%
4-5 nights	20%
6-7 nights	65%

During the first few weeks of school, the teacher/researcher administered an individual reading inventory to the targeted students. The teacher/ researcher determined the students' instructional reading level according to the number of miscues made on several different passages. Once the instructional reading level was determined, the students were asked comprehension questions. The percentage of correct responses was totaled. Seventeen students scored 60% of the comprehension questions correct. Two students scored 90% or better. Likewise, eight students scored less than 40% of the questions correct.

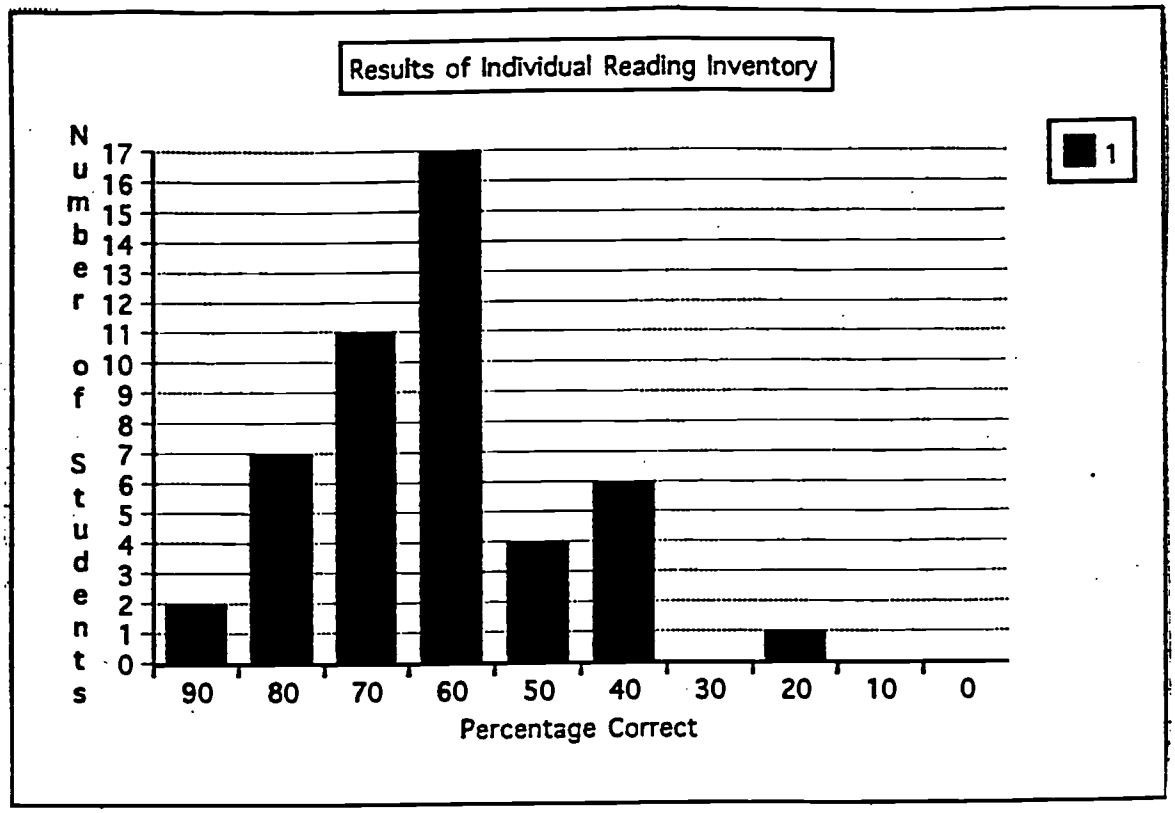

Figure 1 Percentage Scores of Correct Responses of the Individual Reading Inventory

Probable Causes

There are many probable causes that may lead to students having difficulty with reading comprehension. These causes are: lack of parent involvement, lack of student motivation, and a need for more teacher training on how to teach comprehension.

Probable Local Causes

The researchers found several causes locally that contribute to lowered reading comprehension. One of the most critical causes, among the targeted students is that have several extra-curricular activities. These children are participating in religious classes, sport activities,

These children are participating in religious classes, sport activities, scouts, and private tutoring sessions. Another cause for lower skills is that both parents work. Many students are enrolled in a morning and afternoon after-school program. In both of these situations, parents are not spending adequate time helping their children improve their reading comprehension. In addition, a majority of students are pulled out of the regular classrooms for various programs, such as: band, English as a second language, speech, counseling, and additional academic help. Therefore, these learners have less classroom instructional time on task, where reading comprehension skills are taught. Numerous students are also dealing with difficult home situations that may inhibit learning such as: divorce, illness, and death.

Probable Causes Found in the Literature

There are many probable causes that may lead students to have difficulty comprehending what they read. For example, students may not have been directly taught how to comprehend what they read. Durkin (1994) concluded that teachers were spending very little time on actual comprehension instruction. Although, they gave many workbook assignment and asked many questions about text content, Durkin judged that these exercises mostly tested students' understanding instead of teaching them how to comprehend.

According to Cooper (1986) teachers ask predominantly literal

questions, thus, students are not being challenged to use their inferential and critical reading and thinking abilities. When teachers do teach direct comprehension skills, the instruction does not go beyond the literal comprehension of a story. The questions teachers ask, do not give students an opportunity to think critically, and move beyond the literal interpretation of a story.

Another cause for students who have difficulty comprehending what they read, may be that teachers are not activating students' prior knowledge. Students have difficulty relating what they learn and read in school to their life experiences. Cooper (1986) has reported that another problem with the traditional teaching of comprehension skills, is that it lacks processes to help the reader relate the information obtained from the text, to their past experiences.

Students don't always understand the concept of reading to gain meaning. They often decode the words but don't understand what they read. A disengaged reader, whose attention is shallow, may be easily distracted from the reading, and operate by mainly scanning the text. The disengaged reader may be registering the words and driven by a goal of "getting through" rather than dealing with what's there (Beck, McKeown, Worthy, 1995).

Lastly, students don't self-monitor their reading. Poor readers do not always monitor their understanding of what they have just read. These

readers often are taught to just get through the text. They don't understand that it is important for them to be able to go back and reread for understanding. Other students are those who read fluently but do not always stop and think about what they are reading. Thompson (1993) believes that often students will "read" an entire text and understand nothing of what they read. These students believe the myth that good reader never reread, question or ponder carefully.

Many children experience frustration in the complex task of reading comprehension. Five significant factors have been found which appear to impede comprehension. They are: students have difficulty comprehending what the read, teachers only teach literal comprehension, prior knowledge has not been activated, students do not understand the concept of reading to gain meaning, and finally,students do not self-monitor their own comprehension while reading.

In summary, many probable causes were observed locally and mentioned in the literature. Some of the causes include too many extra-curricular activities and a lot of student time spent outside of the classroom during the school day. Also, students have a difficult time answering critical questions about what has just been read and students are not necessarily reading to gain meaning from text. In as much as the causes have been identified, the solutions can be examined.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

Through a review of the literature related to student learning, it was noted that students were not demonstrating high levels of reading comprehension. Investigation into the problem leads to the conclusion that these low levels of reading comprehension may stem from a need for students to understand what they read and a need for more direct teaching of comprehension. An analysis of the data indicated a need for intervention strategies that would improve reading comprehension.

Students who are directly taught how to answer comprehension questions better understand what they read. Teachers need to teach students how to answer different levels of comprehension questions, because comprehension occurs at different levels. Teachers should have their students read material carefully for a literal understanding of the facts, to see the connection between facts and the entire subject, and to apply what they have learned to other situations (Richardson and Morgan, 1997). The question answer relationship strategy (QAR) was developed by Raphael and her colleagues (1984, 1986). This is a taxonomy with four levels of comprehension questions: right there, think and search, the author and you, and on your own (Richardson and Morgan, 1997). These

mnemonics help students to know if answers are found in the text, inferred from the text, or in their own knowledge base. According to Graham and Wong (1993) the QAR can be modified replacing Raphael's mnemonics with "Here", "Hidden", and "Head" (the 3H's). These alliterations are very easy to remember. This mnemonic strategy is particularly important to students with reading disabilities, who often have memory problems.

Teachers can directly teach these three levels of comprehension using these mnemonics: "Here", "Hidden", and "Head". Using three words that begin with "H" is an association strategy which enhances memory (Lucas and Lorayne, 1974).

Literal questions can be answered directly from reading the text. When explaining to students literal questions and how to answer them, teachers can refer to the word "here." The students then know that "here" questions can be answered "here" in the text.

Inferential questions can be explained as questions that students have to search for in the text. In other words, the answer is "hidden" somewhere in the story or passage. It is inferred.

Critical questions require students to connect what they have read and go beyond the text on their own. These questions require the readers to use their "heads" or to use their own ideas to answer the question. The answer is not found in the text. These levels of comprehension can be

taught intentionally by explaining them to students. Then, when students read a passage together, they can answer questions at all three levels and discuss the differences between them. Including a variety of question types in comprehension lessons can also prevent teachers from overusing literal and explicit questions. Teachers who provide the 3H strategy, a combination of literal, inferential, and critical questions in their reading, appear to increase the level of comprehension in the students' reading ability (Graham and Wong, 1993). Cooper (1986) also concurs with the idea of teaching the comprehension skills. He states that the basic theory underlying the skills approach to comprehension is that there are certain parts of the comprehension process that can be taught. The assumption is that students can demonstrate increased success with the skill after instruction from the teacher.

Students will have more success if they learn strategies that help them figure out what they need to do before reading, during reading and after reading. One such strategy is to introduce your students to a "Thinking Reader's Wheel." The Thinking Reading Wheel is a visual organizer used by a veteran teacher, Vernice Peterson. This wheel will help students with many strategies. For example, this wheel can help students before beginning to read, by focusing the students' attention to setting a purpose for their reading, predicting what the material will be about, and thinking about why they are reading the material. While

reading, the teacher can refer to this wheel to help the students self-monitor their reading, visualize what is being read, and give focus to the material. After reading the material, the wheel can remind students to reflect on what has been learned or gained, check for understanding and decide how to use the new information. (Peterson,1999)

According to the Commission on Reading (1986) well-written materials will not do the job alone. Teachers must teach students strategies for extracting and organizing critical information from a text. Another strategy is giving students ample time for reading texts. It is important to ensure that students are spending enough time actually reading and not spending too much of their time doing activities that just build reading skills, such as workbook pages. Children need time to practice and demonstrate those skills taught by the teacher (Cooper). Reading silently can build vocabulary and concept knowledge. However, simply providing the time to read silently is not enough. The teacher must help children to make good choices about text selection. Teachers can help their students choose books that are challenging but not so difficult that they spend too much time figuring out the words. Similarly, encouraging students to reread books not only improves fluency but also comprehension.

It is also important to note that silent reading time does not always have to mean that there is no interaction between students. Teachers can

encourage pairs of students to read together and provide time for students to share the books that they have read. Teacher directed instruction could include a teacher demonstration of the processes used and provide time for teachers and students to practice the strategies together. The use of real reading texts in comprehension instruction can also be included, while also using the text for constructed reading materials or short passages. Opportunities for students to learn together and from one another are also successful in improving comprehension. Cooperative learning situations and reciprocal teaching can enhance student learning in the area of reading. Reciprocal teaching is a method in which a teacher and one or two students working together take turns being the "expert" or teacher and formulate questions in response to a passage read together. In one of the biggest success stories of the time period, research repeatedly showed that comprehension can in fact be taught (Fielding and Pearson, 1994).

In order for students to better understand what they read, a balanced reading program is essential to comprehension. This program should include daily silent reading, guided reading, shared reading, and time for listening to books being read out loud. Teachers who are found to be the most effective in helping their students gain understanding from reading, utilize explicit skills instruction and authentic reading experiences. Most importantly, it is the deliberate and well-planned

integration of the instruction and authentic activities that yields the most student growth in comprehension. Using an integrated approach is necessary for successful developing literacy (Metsala, 1997).

Daily silent reading is a key component of a complete reading program. It gives students practice in using the skills taught during reading instruction. Teaching students how to choose books that are appropriate for their age and reading level is an important skill. Giving students time to explore books on their own, helps to develop a lifelong love of reading.

Guided reading is an opportunity for the teacher to focus students' attention to the structure of the text and how it relates to the students. Activities completed during this time should reflect how well they comprehended the reading material. In other words, the activities should have an obvious connection from the purpose set for reading and the task at hand. Shared reading is time for the teacher to share a book with the students in an enjoyable and purposeful way. The text is usually enlarged so that all children can see the words. This process could include reading big books, poems, and songs. Reading books aloud to students does not take a lot of time and has many benefits. In selecting books to be read aloud, consider the interests and age of the audience. The length and subject should match the age and maturity of the students. Reading books aloud to children can greatly improve students' motivation to read on

their own. It also enhances vocabulary, even though the meaning of the words are not directly taught. Read-aloud time is not the time to test students. It is a time to enjoy the process of reading together as a group (Routman, 1994).

This reading program should also include a balance of phonics and whole language. Some major understandings of language learning include connecting reading and writing, socialization while becoming literate, and taking risks. Highly effective teachers use both authentic literacy experiences and explicit teaching through modeling, explanation, and mini lessons (Metsala, 1997).

> "The whole language movement...encourages an environment in which children learn what they live, what they hear and try to speak in the context of meaningful, functional use with people who care about them and have confidence that they will learn" (Cazden, 1991).

Fielding and Pearson (1994) believe that what was once thought of as the natural results of decoding plus oral language, comprehension is now viewed as a much more complex process involving knowledge, experience, thinking and teaching. The data strongly supports the position that teachers should be educated to blend perspectives, to weave together a variety of methods and contents, rather than to adhere strongly to one perspective or another (Duffy, 1991).

Another solution for better reading comprehension is a realization that prior knowledge greatly enhances comprehension. Research of the

late 1970's and early 1980's consistently reveal a strong relationship between reading comprehension and prior knowledge (Fielding and Pearson, 1994). If students are able to connect what they are reading with their every day lives the reading becomes much more meaningful. The teacher must find out what the students know, and then prepare how to teach the students (Richardson and Morgan, 1997).

> "Research suggests that the teacher could improve reading by cognitive instruction that encourages the student to draw on the reader's knowledge base, provide the student with new learning strategies for thinking about reading , and refine the student's thinking skills with corrective feedback" (Fogarty and Bellanca, 1993, p. 84).

Some strategies to accomplish this are asking open-ended questions, predicting, and sharing experiences that relate to the text. Cooper (1986) has stated that teachers should focus on the skills and processes that will help readers get clues from the text and relate those clues to prior experiences.

The higher order thinking skill of inferencing can be particularly difficult for students, yet it is critical to good reading. Relating this skill to the things they already know can make it much easier for students to infer information about what they read. Pearson (1993) believes that students' ability to draw inferences improves when they and their

teachers make a conscientious effort to draw relationships between text content and background knowledge. When teachers help students see the relationship between what they already know and what they are reading, it will insure more success. This can be implemented by asking specific questions and using graphic organizers.

Graphic organizers are used to illustrate the organization of ideas and information. It has been found that using graphic organizers both before and after reading aids comprehension, recall, and vocabulary (Dunston, 1992). Concept maps or webs are effective for use before reading to activate prior knowledge. Hierarchical maps are good for use after reading to organize what has been read into levels. Sequential maps can also be used after reading to place in order the events of a story. Venn diagrams are appropriate when comparing and contrasting information. Graphic organizers are also flexible in that they can be constructed by the teacher, as a whole class, or by individual students. When important information is isolated, we can see how concepts are connected, and this makes it more easily understood (Novak and Gowin, 1984).

An important strategy for students to develop is to understand why they are reading what they are reading. Students will comprehend better when they understand that there is a purpose for reading. Teachers can engage their students in a discussion before beginning to read a passage

or text to set the purpose for reading. Children can then be given more of the elements necessary for constructing meaning from their reading. This is important because reading at the early levels is a new enterprise, and children must be made aware that reading is always directed toward meaning (Commission on Reading, 1986). The teacher can make the reading more meaningful by discussing the reason for reading the material. Some of the reasons for reading include reading for information, reading for pleasure, and learning reading strategies.

Metacognition can be defined as the self awareness of one's own thinking and learning. The awareness and control over your own thinking behavior (Fogarty and Bellanca, 1993). Metacognition is a key element to reading comprehension. For readers, metacognitive awareness means knowing when they do or do not understand what they are reading (Olsen and Homan, 1993). According to Brown's research (1980) in reading, metacognition is what good readers do when they read. They monitor and evaluate throughout the reading process. Brown and Palincsar (1982) believe that teachers can teach those metacognitive strategies to all students as a way to open the reading process for them.

One metacognitive strategy that students can be taught is how to self-monitor their reading. Students learn to think about what they read when teachers model the behavior and then give the opportunity for students to rehearse the good reader strategies independently and with

peers. The goal for all readers is to make these strategies a habit (Glazer, 1992). During the reading process, students need to give their full attention to the material being read. Students can also be taught to create a mental picture of what they have just read. Students should often stop to reflect and discuss what they are reading. If what has just been read is unclear, students can stop and reread the material, as a metacognitive strategy. When students learn how to monitor their own reading to make sure it makes sense to them, their comprehension skills will surely improve (Pearson, 1993).

It is the conclusion that reading comprehension should be directly taught through teaching the three levels of comprehension, implementing a balanced reading program, the Thinking Reader's Wheel, silent reading time, shared reading, using prior knowledge, and graphic organizers. The teacher researchers found that reading comprehension can be taught and student's reading comprehension will greatly improve.

Project Outcomes and Solution Components

As a result of the use of various activities and the direct teaching of reading strategies, during the period of August through December of 1998, the targeted second and fourth grade students will show an increase in reading comprehension. In order to accomplish this terminal objective, the following processes are necessary:

1. Implement lessons and teaching strategies that promote reading comprehension.
2. Implement teaching strategies that will include a variety of questioning techniques.
3. Implement a variety of reading materials.

A. The following are the components to the solution:

1. A balanced reading program is essential to reading comprehension.
2. Teachers need to provide a combination of literal, inferential and critical questions in their reading comprehension questioning techniques.
3. Teachers need to directly teach comprehension strategies.
4. Prior knowledge greatly enhances comprehension.
5. Students need to be taught how to self-monitor their reading.
6. Students will comprehend better when they understand there is a purpose for their reading.

Action Plan for the Intervention

Week 1:

A. Administer the Individual Reading Inventory

B. Administer the Student Survey

C. Begin a routine for daily silent reading time at school

1. Teach students how to choose books that are at their reading level
2. Find an appropriate location in the classroom to quietly read

D. Begin a routine for reading at home

1. Teach students how to choose books that are at their reading level
2. Find an appropriate location at home to quietly read

Week 2:

A. Read a story together as a class and explain what type of questions each "H" represents (here, hidden, and head). These relate to literal, inferential and critical questions.

B. Students will read in groups and practice answering "here" questions. Teach students the necessary strategies to answer questions that are found right there in the text.

Week 3:

A. Continue reading and answering "here" questions.

B. Introduce and model predicting as a reading strategy using a graphic organizer.

1. A story web can facilitate prediction by having children brainstorm what they think will happen in the story and writing this information on the web.

2. A prediction tree can help students predict what will happen and why they think this.

C. Will activate prior knowledge during classroom discussions.

1. Students will discuss, with a partner, their prior knowledge about the topic.

2. During whole group time prior knowledge will be shared.

Week 4: A. Students will create their own "here" questions relative to books/stories read this week.

B. Teachers will model identifying the beginning, middle and end of a story. Students will fill out a story map stating the beginning, middle and end of a story.

C. Teachers will review choosing books that are at grade level for silent reading time.

Week 5: A. Introduce the second "H" which represents questions hidden in the text. These are also referred to as inferential questions.

1. This can be described to the children as "detective work." They need to dig a little deeper for the answers to the questions.

2. To demonstrate how to answer these questions, read a small passage together and practice looking for the answers.

B. Introduce the components of a story (characters, plot, setting, conflict and solution)

1. Discuss how to use a story map to relay these parts of a text.

2. Have students read a book and create their own story map demonstrating the components of a story.

Week 6: A. Continue working on the components of a story.

1. Students will complete a Venn diagram comparing two characters in a story.
2. Have students act out the story delineating character, plot, setting,etc.

B. Introduce fiction and nonfiction.

C. In groups, students will read different books and will give a short verbal report to the whole class.

1. Students will give a short report on a fiction book.
2. Students will report on a non-fiction book.

D. Continue working with "hidden" questioning (inferential).

Week 7: A. Explain and model sequencing the events of a story.

B. Students will make up their own "hidden" questions for a story.

C. Teachers will model finding the main idea using a graphic organizer.

1. Ask students to complete an information chart describing who, what, when, where, and how.
2. Another graphic organizer that helps students relate the main idea is a target. It has the title of the book in the middle and important facts in the other circles in the target.

Week 8: A. Introduce the third "H" which represents questions that are answered from the students' own experiences (critical).

1. Read a short passage together as a class.

2. Ask students to answer "head" questions relating to the passage.

B. Discuss as a class the different reasons that people read. Help students understand that it is important to always set a purpose for reading.

Week 9: A. Continue practicing answering "head" (critical) questions.

B. During small group guided reading time, discuss strategies to use when having difficulties.

C. Before reading a Thanksgiving book, ask students to relate holiday to their own experiences using a venn diagram.

Week 10: A. Students will write their own "head" (critical) questions.

B. Write in literature logs about books read during silent reading time.

C. Discuss a variety of genres.

1. Have a whole class discussion about humorous books, fiction, mystery, biographies, fairy tales, and non-fiction books.
2. Prepare a bulletin board where displaying the books the students have read in the different genres.

Week 11: A. Implement a whole group activity using all three "H" strategies (here, hidden and head)

1. Read a passage as a whole group.
2. Ask students to answer questions about the passage and decide if they are "here", "hidden", or "head" questions.

B. Implement reading and sharing books with a buddy class.

Week 12: A. Teach story maps individually on any assigned book.

B. Teach finding the main idea.

Week 13: A. Implement comprehension activities found in Time for Kids magazines.

B. Teach a non-fiction lesson and discover four facts from the text that are new or interesting.

Week 14: A. Implement final project to demonstrate what they have learned about comprehension this year.

B. Administer individual reading inventory.

C. Execute student survey.

Methods of Assessment

In order to assess the effects of the intervention, an individualized reading inventory called the Basic Reading Inventory, will be administer after the intervention to determine the amount of growth in reading comprehension. In addition, students will be asked to respond to a survey to determine their attitudes and knowledge concerning reading.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The ultimate objective of the interventions addressed the need to improve students' reading comprehension. The researchers were able to accomplish this through directly teaching comprehension strategies. The targeted classrooms were comprised of second grade, and a fourth grade classroom. Evidence for the existence of this problem included teacher observations, parent surveys, student questionnaires, and a reading inventory.

The implementation of various activities were selected to improve students' comprehension. In order to accomplish the objective, the following processes were necessary: teaching the three levels of comprehension, implementing a balanced reading program, teaching of the Thinking Reader's Wheel, silently reading, implementing shared reading, using prior knowledge, and teaching the use of graphic organizers.

This project had three major objectives: enhance awareness of the three levels of comprehension, increase student reading comprehension, and implement a balanced reading program. These objectives were taught in a fourteen week time-frame. The three teacher researchers devoted three hours per week to directly teaching these strategies. It was

apparent after several weeks that no deviation to this project was necessary.

Teacher input through the use of teacher observation and professional literature was sought. Results, established and validated the need for such a project. The process began with the recognition of the need to improve reading comprehension through a student questionnaire (Appendix A), a reading inventory (Appendix B), and a parent survey (Appendix C). After analyzing the collection data, it was decided what plan of action would follow. Students would learn more about reading comprehension by directly taught strategies, and a balanced reading program, including phonics, whole language, silent reading time, and shared reading experiences.

One activity of the reading comprehension component was to administer a reading inventory called the Basic Reading Inventory. From this test the teacher researchers concluded that students lack knowledge of reading comprehension.

Another one of the activities involved the three levels of comprehension questions, which we called "here", "hidden", and "head" questions. After several weeks of activities aimed at introducing these words associated with literal, inferential, and critical questions, the students were asked to participate in an activity in which they answered all three types of questions and identified the type of question. The

students were asked to become "detectives". First, the students read a passage. They were then given several questions to answer related to the passage. The students had to answer the questions correctly and record which type of question they had just answered. In some cases, some great dialogue occurred between students as they worked on answering and identifying the types of questions.

Presentation and Analysis Results

In order to assess the effects of reading comprehension, a student survey, a parent questionnaire, and a basic reading inventory was used. In this section, the data gathered through those assessment methods are presented. Depending on the methods used, tables, graphs, and/or narrative presentations are appropriate.

Table 7
Responses to First Question on Student Survey
When you can't understand something in a story, what do you do?

Student Response	Frequency of Response	
	September	January
Ask for help	54%	31%
Reread	26%	62%
I don't know	14%	05%
Think about it	06%	02%

Table seven indicates that students are becoming more independent while reading. In September 54% were asking for help. In January, this decreased to 31%. The table also shows an increase in the skill of rereading what is not clear. In September, only 26% of the students

surveyed indicated that they reread to gain understanding. In January, 62% of the students were using this skill.

Table 8

Responses to Second Question on Student Survey
When you can't answer a question about something you have read, what do you do?

Student Response	Frequency of Response	
	September	January
Ask for help	44%	07%
Look up answer/ reread	28%	58%
Think about it	02%	29%
Guess/I don't know	26%	06%

Table eight indicates that fewer students are asking for help or guessing the answer to a question. For example, in September 44% of the students reported asking for help when asked to answer comprehension questions. In January, only 7% of the students polled indicated that they ask for help when unsure of the answer to a question. The researchers think that this table also indicates that because of the intervention, the students learned how to better respond to questions using strategies like going back to the text to find the answers.

Table 9

Responses to Third Question on Student Survey
What things do you need to do to be a better reader than you are right now?

Student Response	Frequency of Response	
	September	January
Learn more words	20%	18%
Get more help	04%	00%
Practice	64%	80%
I don't know	12%	02%

Table 9 indicates that students have learned that practice is very important to the reading process. For example, in September 64% of the students knew that practice is a necessary part of becoming a better reader. In January, this percentage went up by 16%.

Table 10

Response to First Question on Parent Survey
Do you think your child likes to read?

Parent Response	Frequency of Response	
	September	January
Yes	71%	87%
At Times	15%	07%
No	14%	06%

Table ten shows that the number of students who enjoy reading at home went up as the year progressed. In September, 71% of the parents surveyed indicated that their child likes to read. By January, that number had risen to 87%. The researchers believe that as the children became

more confident in their own reading ability, they began to see reading as a more pleasurable activity.

Table 11

Response to Second Question on Parent Survey
Do you think your child understands what he or she read?

Parent Response	Frequency of Response	
	September	January
Yes	73%	83%
At Times	27%	17%
No	00%	00%

Table eleven indicates that there was a ten percent increase in the number of parents who responded that their child comprehends what is read. The researchers believe that the parents have been educated as to the importance of understanding what is read, not just reading the words on the page and that there are different levels of comprehension.

Table 12
Response to Third Question on Parent Survey
Have you seen improvement in your child's comprehension?

Parent Response	Frequency of Response
Yes	91%
At Times	09%
No	00%

The question in Table 12 was added to the survey given in January. The results shown indicate that a large majority of the students, 91%, have improved their reading comprehension as reported by their parents.

Table 13

Response to Fourth Question on Parent Survey
How often does your child read at home?

Parent Response	Frequency of Response	
	September	January
0-3 nights	15%	02%
4-5 nights	20%	35%
6-7 nights	65%	63%

Table thirteen shows an overall increase in the amount of time that students spend reading at home even though there is a slight decrease in the six to seven nights category. The largest increase is seen in the four to five nights category. The percentage of students reading four to five nights per week increased by fifteen percent.

Table 14

Results of Individual Reading Inventory
Numbers of students who scored each percentage listed in graph

Score	September Results	January Results
100%	0 students	26 students
90%	2 students	14 students
80%	7 students	7 students
70%	11 students	0 students
60%	17 students	1 students
50%	4 students	0 students
40%	6 students	0 students
30%	0 students	0 students
20%	1 student	0 students

Table fourteen shows an obvious improvement in reading comprehension. Students scoring ninety to one hundred percent increased

from 2 students to 40 students from September to January. No students in the January screening, scored below sixty percent, whereas eleven students scored below sixty percent in September. Even though it is necessary to take into account a normal rate of growth in reading, the researchers believe that directly teaching comprehension strategies markedly improves students' ability to understand what they read.

Conclusions and Recommendations

Based on the presentation and analysis of the data collected, the targeted students showed marked growth in reading comprehension. Some of the interventions included directly teaching the three levels of comprehension, implementing a balanced reading program, the Thinking Reader's Wheel, silent reading time, shared reading, using prior knowledge, and using graphic organizers.

Previously, the reading program did not include direct teaching of comprehension. The researchers were much more aware of including activities from many different modalities. This included activities ranging from reading basals to implementing literature circles. Before the intervention, the students were only aware of literal comprehension questions. After introducing them to the three levels of questions, their reading comprehension improved drastically.

An increase in knowledge was exhibited through test scores, teacher observation, and surveys. The post test scores supported the original

contention that students will have increased reading comprehension. These scores showed that students understood what they read much better after the intervention was implemented. The results of the surveys show that the students now understand that gaining meaning is the purpose of reading. Now when the students do not comprehend, they use strategies that they have learned in order to gain meaning from the material.

Students and parents reflected a more positive attitude toward reading because of our intervention. The following comments appeared on our parent post-surveys.

"...I've seen great improvement in our daughter's interpretation of big and difficult words."

"My son has become more willing to try longer, more difficult choices...

"There has been improvement this school year. I notice my son now questions character's motivations and plot lines. His questions, too, show greater understanding."

" My son reads with more fluency and less help and understands the main idea."

For educators desiring to improve student's reading comprehension, the researchers recommend a balanced reading program and directly teaching comprehension strategies. It is necessary to include many different opportunities for students to practice their newly learned

skills. For example, include time for students to read silently and read in partners or small groups. Some examples of how the researchers suggest you do this is do literature circles, reader's theater, guided reading, shared reading, teacher read-aloud time, silent reading, and reading from many different genres. The researchers suggest that teachers visually display the three levels of questions all year long and using a mnemonic device such as "here", "hidden", and "head". The researchers called these the three "H's". Another helpful hint is to display the "Thinking Reader's Wheel". This visual organizer tells students what they need to do before, during and after reading.

The advantages of the intervention cannot be fully appreciated by simply analyzing the surveys and test results. Due to this positive correlation, the researchers will continue to use interventions and strategies mentioned throughout this action research project in order to motivate future students.

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APPENDICES

Appendix A

Name _____

Student Survey

1. Do you think reading is important? Why?

_____

_____

2. When you can't read a word in a story, what do you do? _____

_____

3. When you can't understand something in a story, what do you do? _____

_____

4. When you can't answer a question about something you have read, what do you do? _____

_____

5. What do you have to learn to be a good reader?

_____

_____

6. What do you need to do to be a good reader?

_____

_____

7. Why do you think some children have trouble reading? _____

_____

8. What things do you need to learn to be a better reader than you are right now? _____

_____

_____

9. What do you like to read? _____

_____

10. How do you feel about reading?_____

_____

Appendix B

Jerry L. Johns

Fourth Edition

Appendix C

Child's Name _____

Parent Questionnaire

1. Do you think your child likes to read? Why or why not?

_____
_____
_____

2. Do you think your child understands what he or she reads? Why do you think that?

_____
_____
_____

3. Have you seen improvement in your child's comprehension?

_____
_____
_____

4. How often does your child read at home?

_____
_____
_____

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