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ABSTRACT

This report describes a program for improving reading comprehension skills in order to heighten understanding of materials covered in class and performance on activities and exams. The targeted population consisted of first-, fifth-, and eighth-grade students in a large, lower- to middle-class community located in central Illinois. The problems in reading comprehension were documented through classroom performance and test scores. Analysis of probable cause data revealed that students lacked the necessary skills to process and understand what they read. Faculty reported that these deficiencies affect everything from following directions to the results on standardized exams. Review of curricula content and instructional strategies revealed that the methods that have been used are inconsistent and have not been planned in a way that emphasizes comprehension. A review of solution strategies (suggested by knowledgeable others) combined with an analysis of the problem setting resulted in the selection of an intervention that focused on the basics of comprehension (such as context clues, summarizing, and clarifying), presented with pre- and post-reading strategies, and cooperative learning. Post intervention data indicated an overall increase in reading comprehension abilities. Appendixes contain survey instruments, data tabulations, story pyramids, and graphic organizers. (Contains 27 references and 12 tables.) (Author/RS)

STRATEGIES FOR IMPROVING READING COMPREHENSION IN CONTENT AREAS

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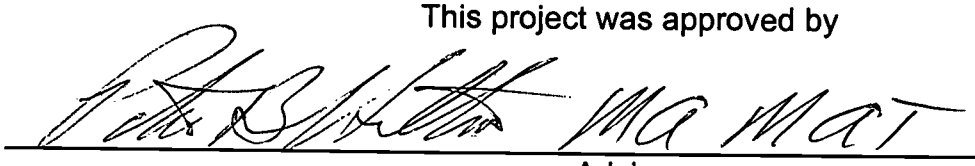

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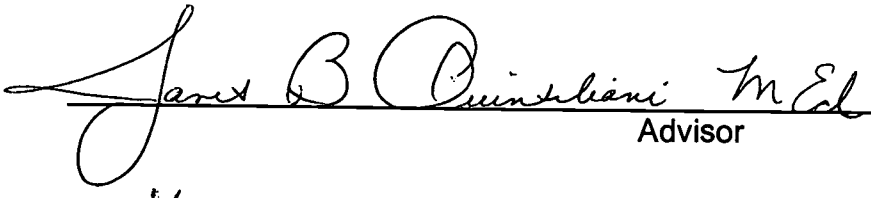

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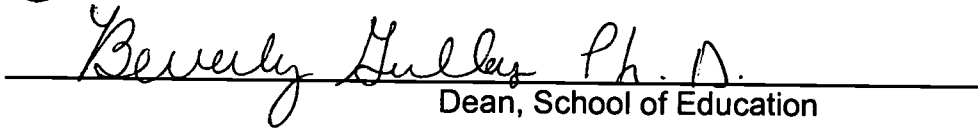

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ABSTRACT

This report describes a program for improving reading comprehension skills in order to improve understanding of materials covered in class and performance on activities and exams. The targeted population consisted of first , fifth, and eighth grade students in a large, lower to middle class community, located in central Illinois. The problems in reading comprehension were documented through classroom performance and test scores.

Analysis of probable cause data revealed that students lacked the necessary skills to process and understand what they read. Faculty reported that these deficiencies affect everything from following directions to the results on standardized exams. Review of curricula content and instructional strategies revealed that the methods that have been used are inconsistent and have not been planned in a way that emphasizes comprehension.

A review of solution strategies, suggested by knowledgeable others, combined with an analysis of the problem setting resulted in the selection of an intervention that focused on the basics of comprehension (such as context clues, summarizing, and clarifying), presented with pre and post reading strategies, and cooperative learning.

Post intervention data indicated an overall increase in reading comprehension abilities.

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CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

The students of the targeted first. fifth, and eighth - grade classrooms exhibit poor comprehension skills when reading in all content areas. Evidence of the existence of the problem includes poor ISAT and ITBS reading comprehension scores, and teacher observation.

Immediate Problem Context

This research project is being conducted in 3 sites: 1 primary school and two middle schools, serving communities within the same city, from various economic and ethnic backgrounds. These schools serve the same school district. They will be identified as Schools A, B, and C.

School A

The personnel of School A consists of one principal, 19 regular division classroom teachers 3-kindergarten, 5-first grades, 4-second grades, 4-third grades, and 3-fourth grades, 4 special education classroom teachers, 1 librarian, 1 speech and language teacher, and 2 part-time prep teachers. The school employs 3 specialists: 1 physical education teacher, 1 music teacher, and 1 orchestra teacher. The total teaching/supervisory paraprofessional staff is 30 persons. The teachers have an average of 14 years experience and 50% have obtained a masters degree. The number of male vs. female teachers is 1 out of 30. The ethnicity of teachers is 94% Caucasian and 6% African-American.

This particular school opened in the fall of 1979 and houses 429 students. The 2 story brick building is currently in good physical condition. This building is equipped with central air-conditioner, an elevator, and handicap accessible. There are three computers in the library that are connected to the Internet. The computer lab is adjacent to the library and houses 30 computers. Various educational games and the Accelerated Reader network are hooked up to every computer in the lab and classroom. The cafeteria is designed to hold separate lunch periods for each grade level in the building.

School A accepted a state grant that allows the district to hire extra first grade teachers. Within the next two years each primary school should have 5 first grade classrooms with a total of 19 students in each. To make room for the extra first grade classroom School A went to an all inclusion program. One teacher from first through fourth grade will team teach with a special education teacher. Special education students will be assigned to those teachers who are team teaching.

Program emphasis is placed on the students becoming independent thinkers, enthusiastic learners, and problem solvers. The students' needs are being met through a variety of programs. Extra curricular activities include an Extended Reading Program, Drama Club, Daisies/Brownie Troop, Cub Scouts, and a Latchkey Program. Support is given to the targeted school from many sources within the community. There are Adopt-A-School partners who are actively involved with the school. Pizza Hut sponsors a "Book-It" reading program. Many local companies have provided materials for teachers and students.

There is a very active Parent Teacher Committee that holds fund raisers to provide money for the purchase of educational materials, classroom computers, library books for the Accelerated Reader Program, playground equipment, computer lab. Many other resources of the school have been a result of the great efforts of the Parent Teacher Committee fund raising.

This particular school houses 429 students in kindergarten through the fourth grade. The average class size is 21.5 at kindergarten, 18.5 at first, 22.5 at second, 25.7 at third, and 22 at fourth. Fifty-eight percent of the students are Caucasian, 35% African-American, 5% are Asian/Pacific Islander, and 1.4% Hispanic . There is a mobility rate of 28%, which is higher than the district average of 32%. The attendance rate is 95.5%, which is higher than the district's of 92.4%, and the state's 93.9%. There are 3 chronic truants. Thirty-five point nine percent of students are from low income families and 2.1% are limited English proficient students who are eligible for bilingual education. Thirty-five percent of students who attend this school qualify for free or reduced priced meals. Approximately 7.9% of students are bused from a federal government housing project located on the south side of this community (School Report Card, 1998).

In a 5-day school week, third grade devotes an allotted time of 250 minutes for math, 120 minutes for science/social studies, 350 minutes for English/penmanship, 690 minutes for reading/library/spelling. ISAT (Illinois State Achievement Test), previously known as IGAP, third grade average test score for 1997-98 is 258 in reading, 308 in math, and 19.5 in writing. In reading 54% of students meet goals, 25% did not meet goals, and 22% exceed goals. In

mathematics 57% of students meet goals, 5% did not goals, and 38% exceed goals. In writing 62% of students meet goals, 9% did not meet goals, and 29% exceed goals. ISAT is not administered in grades K-2 (School Report Card, 1998).

School B

School B is a middle school that has a faculty and a staff of 58. Twenty-eight are teachers. Supporting staff includes a librarian, nurse, computer instructor and an assistant, counselor, home facilitator, art and music teacher, resource teacher, Spanish teacher, speech pathologist and an assistant, and 2 physical education teachers. The school is headed by a principal, an assistant, and a part-time assistant principal. Teachers average 15.1 years of teaching experience. In the regular division there are 5 fifth grade, 5 sixth grade, 4 seventh grade and 8 eighth grade teachers. The special education department contains 2 Cross Aged Tutoring (cross cat) teachers for each of the grade levels and 1 fifth/sixth grade and 1 seventh/eight grade teacher for the Behavior Emotional Disturbed (B.E.D.) students. Forty-four percent of the teachers have a master's or above. There is a racial composite of 90% Caucasian and 10% African American, in which 69% are female and 31% are male.

The school is a large, well-maintained building constructed in 1950 as a 7th-9th junior high school. It also served as a 7th & 8th junior high, K-8th elementary and it is presently being used as a 5th-8th middle school.

According to the information obtained from the school's 1997-1998 Report Card, the total student population enrollment is 498. Of this number, approximately 78.5% are African American, 19.9% are Caucasian, and 1.6% are Hispanic students. The average class size is 27.7%. Personal contact of students' parents/guardians and the school staff during the school year is 74.4%. "Personal contact" includes parent-teacher conferences, parental visits to school, school visits to home, telephone contacts, and written correspondence. The student attendance rate is 88.0 %, the student mobility rate is 44.3% and chronic truancy is 10.2%. There are a total of forty-nine chronic truants.

School B devotes 45 minutes of instruction to each of the core subjects for 7 periods each day of the 5-day school week. The following are the sixth grade Illinois Goal Assessment Program (IGAP) average scores for 1997-98; in reading 64% do not meet goals, 31% meet goals, and 5% exceed goals. In math 43% do not meet goals, 56% meet goals, and 1% exceed goals. In writing 15% do not meet goals, 79% meet goals, and 6% exceed goals. The state has changed the test name from IGAP to ISAT (Illinois Standard Achievement Test). Sixth grade students will no longer take the test. It will be administered to the fifth grade students.

The school offers a vast number of programs and after school activities such as, band vocal music, orchestra and sports. Programs such as D.A.R.E. and Target are preventive programs. Other programs such as Geography

Olympiad, Math Counts, Accelerated Reader, Oprah Book Club, Scholars Cup, and the Langston Hughes Creative Writing Award offer incentives that encourage students to excel. Tutoring programs have been implemented to assist needy students. The school started an Extended Day Program to assist students in improving their basic skills, which are critical to improving ISAT and ITBS (Iowa Test of Basic Skills) scores.

School C

School C is a fifth through eighth grade facility. It has a full time faculty and staff of 25. There are three 5th-grade teachers, three 6th-grade teachers, three 7th-grade teachers, and four 8th-grade teachers. There are also two part-time teachers, a social worker, psychologist, nurse, speech pathologist, counselor, and two custodians. There are three special education instructors, two emotionally/ mentally handicapped classrooms, and one Behavior Emotional Disorder (B.E.D.) class. In the area of fine arts, there are three part-time instructors covering band, orchestra, and chorus. There is also a part-time French instructor.

School C has both a full-time principal and a part-time assistant principal. Approximately 75% of the full-time teachers have master's degrees. The racial/ethnic background of the staff is 95% Caucasian, 5% African-American. There are seventeen female teachers and eight male teachers.

School C is housed in a brick building constructed in 1938. The two-story brick building contains an "old" gym that is used as a gym, cafeteria, and auditorium. A new gym and additional library space were added in 1994. A new, Internet accessible computer lab and resource center opened in 1997. There is also an older computer lab in the building. Both facilities have between 25 to 30 computer stations.

Of the 398 students who attend this site, 40.3% are considered "low income." Less than one percent (.6) have limited English proficiency. More than one-third of students at School C are bused. One hundred forty-two qualify for free or reduced lunch. The racial/ethnic background of the students is 68.9% Caucasian, 25.7% African-American, 2.5% Hispanic, 0.8% Asian/Pacific Islander, and 0.3% Native American.

School C has an overall student body of 398. The average class size is 22.85 students per class. The larger eighth grade has an average class size of 24.7 students. Of the 398 students, there is only one chronic truant. The mobility rate is 17.4%. Overall, there are a 94.6% attendance rate, meaning that percentage of students is present daily.

Across all grade levels, the instructional day is divided as the following: 43 minutes each for mathematics, science, and social science. English and reading also account for 86 minutes of each school day. On state tests in reading, 57% of students met state goals, while 24% did not meet, and 19% exceeded. In

mathematics, 70% met goals, while 12% did not meet, and 18% exceeded. In writing, 85% of students met goals, and 15% exceeded state goals.

School C has several extracurricular activities for student involvement. These include boy's and girl's sport teams, such as basketball, softball, volleyball, and track. There are also competitive academic teams, student council, cheerleading, motivational dance, intramurals, and yearbook. There is also an Extended-Day Reading Program to enrich the reading skills of fifth and sixth grade students.

Parental involvement is a high priority at School C. Parental contact, through conferences, visits, newsletters, telephone calls, and written correspondence was established with 100% of student's parents or guardians. The parent-teacher organization also plays a large role in fundraising and event planning for the school.

Overall District of School A, B, and C

There is one major school district in this city. It covers kindergarten through twelfth grade. This breaks down into 14 primary schools, 12 middle schools, and 4 high schools. There are also special learning centers such as one alternative high school, one early childhood center, a magnet school for arts, a gifted school, and a center for children with special needs.

With an enrollment of 15,500, this school district has an ethnic/racial makeup of 52.7% African-American, 43.6% Caucasian, 1.9% Hispanic, 1.7% Asian/Pacific Islander, and 0.1% Native American. Fifty-six percent of the students are classified as low income and 1.2% are limited-English-proficient. The district has a truancy rate of 6.8%, and a mobility rate of 32%. The

instructional expenditure per pupil is $3,462. The operating expenditure per pupil is $6,492. The average class size is 23.1 students.

This district devotes 45 minutes each instructional day to mathematics, science, and social science. English and reading account for a total of 98 minutes. On average, approximately 55% of students meet goals on state tests. Depending on the subject area, almost 25% exceed goals while the other 25 % do not meet. One troubled area is reading, where 40% of 8th and 6th- graders do not meet state goals.

The district has a total of 1,042 classroom teachers. The racial/ethnic backgrounds are 92.3% Caucasian, 7% African-American, 0.4% Hispanic, and 0.4 % Asian/Pacific Islander. Seventy-five percent of the teachers are female, and 25% male. While the average administrator salary is $66,483, the average teacher salary is $38,725. Teachers in this district have an average of 15.3 years of experience.

Overall Community Setting for School A, B, and C

This fairly large community is in the Midwestern region of the United States. Founded in 1819, this city has a rich history as well as many historical sites. The major industries found here are medical, education, and industrial/earth moving equipment. This city also has three hospitals, two newspapers, four local television stations, and two main libraries.

The median income is $35,278 annually. This number does not adequately reflect the wide range of living conditions present; from federally funded public housing, to $500,000 homes. The average single-family home

sells for $84,700. While many residents labor in the industries mentioned above, there remains an unemployment rate of five percent.

School A Community

This school is located in the Northwest part of the city and includes residents ranging from upper middle class to low income. The school is surrounded by 7 subdivisions, 2 apartment buildings, 1 condominium, and 1 subsidized apartment building. Many of the houses in this community have been purchased by owners who are presently living in them.

The first subdivision is considered upper-class, with houses starting at $300,000 and up. A golf course and a clubhouse, that is open to the public, surrounds this subdivision. The PGA tour was held at this golf course in spring of 1999. Many organizations and non-profit groups hold parties, balls, and fund-raisers at the clubhouse.

The second, third, fourth, and fifth subdivisions consists of upper middle class families; the houses range from $225, 000 and up. The sixth subdivision is another upper middle class subdivision. The houses average around $190,000. Most of the owners of these properties are employed at the major industrial/ earth-moving equipment company. The seventh subdivision surrounds a middle school. Many of the houses in the subdivision are rented out to middle and lower class families.

Most of the children from the above subdivisions attend School A or a private/Catholic school. Many of the people in the surrounding subdivisions are Catholic.

The community that surrounds the school is very close knit. During the spring neighbors in the surrounding community hold a giant garage sale that's

open to the public. A few days before Christmas, one of the subdivisions holds a luminary display.

School B Community

The school is located in an ethnically diverse community. The surrounding neighborhood consists of older homes that are single family dwellings with a value of $22,900. Many of the tenants are renters. In the midst of the multicultural neighborhood, lies a federal housing project that contributes vastly to the African American enrollment of the school. The school has two primary schools (K-4) that feed into this site. One school that feeds heavily into School B is located in the center of the federal housing project. The other school has a majority population coming from its surrounding neighborhood, thus making up a larger percentage of the school's Caucasian population. The only students who are bused are the special education students who live out of the boundaries of School B.

The median family income is $17,192. Eighty-eight percent of the students are from low-income households. Of 742 workers of age 16 and older, 212 are employed in service occupations. Additional statistics show that 82% of the households are headed by single females with children under the age of 18.

There are several factors that may impact School B, such as the increase in crime, increase in the availability of drugs, and the rise of gang activities in the surrounding community.

School C Community

The neighborhood surrounding School C is primarily a working class, residential area. Property value in the surrounding area ranges from $35,000 to

$250,000. Most structures in this area were constructed prior to 1970. Nearly all properties are either in the process of being purchased, or owned by the residents; therefore, there are few rental properties.

To the South of School C is a major commercial avenue. Due to the high traffic there, many stores and other businesses are located there. To the North and East are three churches, a veterinarian, and other smaller businesses. These businesses often donate prizes and supplies to the school.

School C is also located less than a block from the district's administration building. For this reason, the school receives a great deal of exposure in the form of visits and media attention. Various administrators, those interviewing for administrative positions and even political candidates are often shown this facility when they want to learn more about the district.

Other areas of interest surrounding the school serve as sites for field trips. The facilities include a zoo, a park, a library with children-oriented exhibits and a history museum.

National Context of the Problem

The problem of reading and comprehending what has been read is a clear and present problem in today's classroom. President Clinton acknowledged this problem in his 1997 State of the Union Address. He stated that nearly "forty percent of our eight-year olds cannot read on their own."

Needless to say, this problem does not disappear after age eight. "Deficiency in reading comprehension has become a critical national problem; work place illiteracy costs hundreds of billions of dollars in corporate retraining, industrial accidents, and reduced competitiveness" (Mostow, 1997). Evidence of this problem also exists in poor test scores and poor quality work.

The first part of the reading/comprehension problem lies in the inconsistencies of what being "able to read" actually means (Fry, 1998). Many students are absolute "non-readers;" they simply do not process/comprehend what they have read.

The second aspect of the problem lies in deciding what the standards should be for each age/grade level. We (as a country) must decide just how many "failures" will be allowed before the system is changed. Stating that all students must read "at the 50th percentile (50% of the students on the curve are at or below the passing test score point) means that 5 out of 10 students will be allowed to fail" (Fry, 1998).

The third aspect of reading and comprehension revolves around the following: "Who will teach students to read and how will they do it?" Although several "volunteer tutor" programs are already in place, it has become apparent that as a nation, we need to do something more if we want our students to make strides in reading and comprehension (Fry, 1998).

There is also the problem of phonemic awareness and its impact on reading comprehension. "Most theorist and researchers in education have assumed that vocabulary knowledge and reading comprehension are closely related, and numerous studies have shown the strong correlation between the two" (Smith, 1997). Therefore it can be assumed that the lack of phonemic awareness has also had a negative impact on reading and comprehension.

The challenge of reading and comprehension is best summed up by Gerald Coles in his article "No End to the Reading Wars" (1998). First, what is the best way to teach reading, and, second, what needs to be done to ensure that children learn to read and comprehend? These are both questions that have baffled and intrigued educators over the years. Above all else, one point remains clear; illiteracy in childhood results in illiteracy in adulthood.

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

To document the need for a program focusing on reading comprehension in the content areas, students in the targeted population completed the following: student reading survey, pre-tests targeting nine key areas, and a parent survey. This data was collected from September 20, 1999, to October 15, 1999. During the week of October 4, 1999 through October 8, 1999, data collection was temporarily halted due to standardized testing.

At each of the three sites, students and parents were given surveys to complete for the documentation of reading habits (Appendix A and B). Thereafter, consent letters were sent home with all students in the targeted classes. Simultaneously, for the sake of time, students began pre-testing. It was decided that all students would be pre-tested and those who did not return consent letters would be sorted out afterward. The final step in data collection was scoring the pre-tests. Pre-tests were taken from Reading for Understanding (Zaun, 1994), levels 1, 5, and 7-8.

Of the 18 students in the targeted first-grade class at School A, 17 were involved in this process at the start. Two of those students failed to turn in

signed consent forms and were thereby dropped from the research. Due to the anonymity of the parent surveys, their results are still shown there. A summary of responses from the parent survey is presented in Table 1.

Table 1
School A
Parent Survey Results

How often do you read to your child each week?	*Once* **2**	*Three times* **4**	*Three +* **11**
For how many **minutes** does the child read?	*0 – 30* **5**	*30 – 60* **10**	*more than 60* **2**
How often do you take your child to the library?	*Once a week* **1**	*1-2 times monthly* **4**	*Every 3 months* **7**
How often do you purchase books for your child?	*Frequently* **8**	*Sometimes* **6**	*Rarely* **3**
Do you listen to your child read?	*Frequently* **13**	*Sometimes* **4**	*Rarely* **0**
Do you set aside a special time for your child to read?	*Yes* **14**	*No* **3**	
If so, how much time is set aside (in minutes)?	*0 – 30* **9**	*30 – 60* **3**	*more than 60* **0**
How often do you set aside time (on a weekly basis)?	*Daily* **7**	*1-2 times* **6**	*3 or more times* **3**
Do you visit the bookstore with your child?	*Yes* **14**	*No* **3**	
Has your child had any tutoring in reading?	*Yes* **0**	*No* **17**	
Where would you place your child's reading ability? (In terms of grade level)	*Above* **2**	*At* **13**	*Below* **2**
How many minutes per week do you read?	*0 – 30* **0**	*30 – 60* **4**	*more than 60* **13**

How frequently do you read with your child (weekly)?	*Once*	*Three*	*more than three*
	2	**5**	**10**

N=17 (totals not equaling 17 are a result of questions left unanswered)

According to survey results, more than half the parents surveyed read to their children more than three times a week for a total of 30 to 60 minutes each week. Since the targeted students are in first grade, it is not unusual to see such a high percentage of parents reading to them. While 3 parents did not respond, 12 of the parents surveyed had at least taken their child to the library during the past three months. Only one respondent had never visited the public library.

It was also noticeable that ¾ of the parents surveyed spent time listening to their children read. Just as many set aside time for their child to read. When asked where their children's abilities stood, most parents stated "at grade level." It is also noted that the targeted children come from text-rich environments, where 100% of the parents stated that there were books, magazines, and children's storybooks available. Nearly 90% of the parents reported reading with their child at least three times a week.

To gain another perspective, students were also given a survey to complete. Since some students were non-readers, the survey was read to them. Some questions were modified for easier understanding. Question number 8 was omitted.

Table 2
School A
Student Survey Results

Do you enjoy reading?		*Yes* **14**	*No* **1**
How often do you read during a week?	*Less than 1 hour* **4**	*2-3 hours* **5**	*4 or more* **5**
Which do you like more; reading or being read to?		*Reading* **9**	*Being read to* **6**
Are you able to retell what you have read?		*Yes* **13**	*No* **2**
Are there other members in your family who like to read?		*Yes* **15**	*No* **0**
Do you go to the community library?		*Yes* **5**	*No* **10**

N=15

As shown in Table 2, the majority of students stated that they enjoy reading. When asked what type of materials they enjoy reading, all students said story / picture books. In contrast to their parent's responses, 10 of the 15 respondents stated that they do not go to the community library. Most students were confident that they could retell what they had read. These students were not asked to rank themselves as readers.

Sixteen students were given a pretest that focused on the following comprehension skills: main ideas, details, sequencing, predicting, character, cause and effect, comparison, following directions, and making inferences. The table below shows how the students performed in these areas. The numbers across the top of the table show the number correct. The numbers inside the

boxes show how many students answered that many questions correctly. For example, in the category of main ideas, seven students answered all five questions correctly, while six students answered four of the five questions correctly.

Table 3
School A
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11
Main Idea	0	0	0	3	6	7						
Details	0	0	2	0	3	4	6					
Sequencing	1	0	0	0	0	0	0	0	1	1	13	
Predicting	0	0	0	0	0	0	0	0	0	2	6	8
Character												
Cause and Effect	0	0	0	0	0	0	16					
Comparison	0	0	0	0	1	0	5	7	1			
Following Directions	0	0	0	0	0	0	0	1	5	10		
Inference	0	0	0	0	2	4	10					

N=16

In this targeted first-grade classroom, students' strengths appear to be sequencing, cause and effect, and predicting. Areas that show some weakness are main ideas, details, and making inferences. The effects of a text-rich environment can be seen in these pre-test results.

Of the 26 students in the targeted fifth-grade classroom, here described as School B, 16 were involved in completing student surveys, and 13 turned in

parent surveys. By the time pre-testing began, only 12 students had turned in signed consent forms. Thereafter, one student transferred to another school. As a result, 11 students were pre-tested and included in the enclosed results. A summary of parent survey results are presented in Table 4.

Table 4
School B
Parent Survey Results

How often do you read to your child each week?	*Once* **8**	*Three times* **3**	*Three +* **2**
For how many **minutes** does the child read?	*0 – 30* **7**	*30 – 60* **6**	*more than 60* **0**
How often do you take your child to the library?	*Once a week* **3**	*1-2 times monthly* **4**	*Every 3 months* **3**
How often do you purchase books for your child?	*Frequently* **0**	*Sometimes* **7**	*Rarely* **6**
Do you listen to your child read?	*Frequently* **6**	*Sometimes* **6**	*Rarely* **0**
Do you set aside a special time for your child to read?	*Yes* **8**	*No* **5**	
If so, how much time is set aside (in minutes)?	*0 – 30* **8**	*30 – 60* **1**	*more than 60* **0**
How often do you set aside time (on a weekly basis)?	*Daily* **5**	*1-2 times* **6**	*3 or more times* **1**
Do you visit the bookstore with your child?	*Yes* **9**	*No* **3**	
Has your child had any tutoring in reading?	*Yes* **3**	*No* **9**	
Where would you place your child's reading ability? (In terms of grade level)	*Above* **2**	*At* **9**	*Below* **1**
How many minutes per week do you read?	*0 – 30* **5**	*30 – 60* **3**	*more than 60* **5**

How frequently do you read with your child (weekly)?	*Once*	*Three*	*more than three*
	7	**1**	**4**

N=13 (totals not equaling 13 are a result of questions left unanswered)

Of the 13 parents surveyed, eight reported reading with their child only once a week. This drop, in comparison to the responses from School B, may be due in part to the age and grade level of these students. Half reported that their child read for less than an hour each week. Forty-six percent of the parents state that they rarely purchase books for their child. This may be due, in part, to the socioeconomic factors present in this community.

Responses to the questions "Do you set aside a special time for your child to read?", " How much time is set aside?", and "How often do you set aside time?," are unclear. While only eight parents state that they set aside time, nine claim to set aside at least 60 minutes, and 12 say that they set aside time on a daily basis.

Three of the thirteen students had had some sort of tutoring in reading. All three parents reported seeing positive results. Eighty-five percent of parents placed their child's reading abilities at or above grade level. Only one parent stated that their child's reading abilities were below grade level. Also note that two parents stated that their children have speech problems. Eight of the thirteen respondents stated that they read on their own for at least an hour each week, but read with their children for three hours or less. Nine reported having magazines and newspapers in the home, 13 have children's books, and the Bible was also mentioned on two surveys.

In the student survey, all 15 students stated that they enjoy reading. When asked what types of materials they enjoy reading (students allowed multiple choices), 8 enjoyed magazines, 5 preferred comic books, and 3 enjoyed newspapers. The majority of students read for less than an hour each week, and prefer reading rather than being read to. Most students believed that they could summarize what they read.

In contrast to their parent's responses, 38% (six) of the students stated that they do not visit the public library. Consistent with parent responses, 15 of the 16 surveyed reported reading at or above grade level.

Table 5
School B
Student Survey Results

Do you enjoy reading?		*Yes* **15**	*No* **0**
How often do you read during a week?	*Less than 1 hour* **10**	*2-3 hours* **5**	*4 or more* **1**
Which do you like more; reading or being read to?		*Reading* **13**	*Being read to* **3**
Are you able to retell what you have read?	*Often* **4**	*Sometimes* **12**	*Rarely* **0**
Are there other members in your family who like to read?		*Yes* **15**	*No* **1**
Where do you think you read? *(in terms of grade level)*	*At* **9**	*Above* **6**	*Below* **1**
Do you go to the community library?		*Yes* **10**	*No* **6**

N=16

Eleven students were pre-tested on the same reading comprehension skills as the students at School A. The results are presented in Table 6.

Table 6
School B
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	2	1	1	2	5				
Details	0	0	0	3	1	0	5	2			
Sequencing	0	0	3	0	0	1	0	0	1	0	6
Predicting	0	0	2	2	7						
Character	0	0	3	0	6	2					
Cause and Effect	0	3	1	5	2	0					
Comparison	0	3	3	4	1						
Following Directions	4	0	0	6	1	0	0	0	0		
Inference	0	0	0	2	2	1	6	0	0		

N=11

Despite parent and student assessments of reading ability, students show weaknesses in the areas of sequencing, cause and effect, following directions, making inferences, comparison, and locating details. Low scores on this pre-test are consistent with standardized testing scores for this school.

At School C, participating students are from 3 eighth-grade Literature classes that are instructed by the same teacher. While 66 of approximately 75 students completed the student survey, 39 students returned completed parent surveys, and 37 furnished signed consent forms. The sampling of 37 was narrowed down by eliminating 12 students who either had a letter grade of "A" in Literature class, or otherwise exhibited excellent comprehension skills.

Table 7
School C
Parent Survey Results

How often do you read to your child each week?	*Once* **24**	*Three times* **0**	*Three +* **5**
For how many **minutes** does the child read?	*0 – 30* **24**	*30 – 60* **4**	*more than 60* **5**
How often do you take your child to the library?	*Once a week* **5**	*1-2 times monthly* **13**	*Every 3 months* **17**
How often do you purchase books for your child?	*Frequently* **14**	*Sometimes* **20**	*Rarely* **5**
Do you listen to your child read?	*Frequently* **3**	*Sometimes* **20**	*Rarely* **16**
Do you set aside a special time for your child to read?	*Yes* **14**	*No* **25**	
If so, how much time is set aside (in minutes)?	*0 – 30* **9**	*30 – 60* **3**	*more than 60* **0**
How often do you set aside time (on a weekly basis)?	*Daily* **11**	*1-2 times* **9**	*3 or more times* **5**
Do you visit the bookstore with your child?	*Yes* **32**	*No* **7**	
Has your child had any tutoring in reading?	*Yes* **7**	*No* **31**	
Where would you place your child's reading ability? (In terms of grade level)	*Above* **19**	*At* **17**	*Below* **2**
How many minutes per week do you read?	*0 – 30* **7**	*30 – 60* **7**	*more than 60* **23**
How frequently do you read with your child (weekly)?	*Once* **21**	*Three* **7**	*more than three* **8**

N=39 (totals not equaling 39 are a result of questions left unanswered)

The results shown in Table 7 indicate that 29 of the 39 parents surveyed read to their children. Many parents left this question unanswered, writing in the margin that due to the age of the students, they no longer read to them. Thirty

responding parents indicated that they take their child to the library every 1 to 3 months.

Sixteen parents stated that they rarely listened to their child read. Again, this may be due, in part, to the age of the students involved. Fourteen parents set aside at least an hour during the week for their child to read. However, the responses to the question of how often time is set aside are unclear.

The majority of parents visit the book store with their child, and spend some time reading together. Thirty of 39 parents claim to read for at least 30 minutes or more each week.

Six of the seven parents who stated that their children had received tutoring reported seeing positive results. When surveyed, more than 85% placed their child's reading ability at or above grade level. Only two parents reported abilities below grade level. The home environments appear to be text-rich, with the majority of parents reporting that books, magazines, and newspapers are available in the home. Two respondents stated that they also have the Bible available for reading.

Table 8
School C
Student Survey Results

Do you enjoy reading?		*Yes* **63**	*No* **3**
How often do you read during a week?	*Less than 1 hour* **25**	*2-3 hours* **28**	*4 or more* **13**
Which do you like more; reading or being read to?		*Reading* **43**	*Being read to* **23**

Are you able to retell what you have read?	*Often* **34**	*Sometimes* **30**	*Rarely* **2**
Are there other members in your family who like to read?		*Yes* **58**	*No* **8**
Where do you think you read? *(in terms of grade level)*	*At* **33**	*Above* **27**	*Below* **6**
Do you go to the community library?		*Yes* **47**	*No* **19**

N=66

As shown in Table 8, the majority of students at School C enjoy reading. Nearly all come from families where other members also enjoy reading. Despite their love of reading, one-third of those surveyed read for less than an hour per week. Seventy-one percent also claim to go to the community library.

Twenty-three of the 66 respondents prefer being read to over reading on their own. When asked to rate their own reading ability, 50% ranked themselves at grade level, 41% selected above grade level, and 9% reported below grade level.

The pretest administered to these students was taken from two sources: the previously mentioned Reading For Understanding (also used at Schools A and B), and a very similar book from McGraw-Hill titled Building Basic Skills:Reading. Pretests on character, cause and effect, and inference were taken from the latter source.

Table 9
School C
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	0	1	4	10	12				
Details	0	0	2	2	17	1	5				
Sequencing	0	1	3	2	2	6	4	0	2	0	6
Predicting	1	3	5	8	9						
Character	0	0	5	10	8						
Cause and Effect	0	0	1	0	4	5	10	4			
Comparison	0	0	1	0	8	0	7	3			
Following Directions	0	2	2	3	6	2	5	2			
Inference	0	1	2	4	5	7	5				

N=27

The pretest results shown in Table 9 indicate that student weaknesses lie in finding detail, sequencing, predicting, following directions, and making inferences. Strengths are difficult to identify due to the wide range of results in each tested category.

Probable Causes

The literature suggests various possible factors that influence reading comprehension. Among these factors are linguistic competence, interest, prior knowledge, motivation, reading ability, understanding written message, home and school environment.

In an effort to improve reading comprehension within the content area, Pearson and Johnson (1978) suggest that linguistic competence can influence comprehension. Linguistic competence, what the reader knows about the language, is the process by which children learn language. (Pearson & Johnson 1978). This process consists mainly of listening to and repeating the language

the child is exposed to. According to Pearson and Johnson (1978), children learn language in three systems: phonological, syntactic, and semantic. Phonological knowledge is the study of individual sounds and how they blend together to create words. Syntactic knowledge is the study of how words are arranged in a sentence. It also includes recognizing the correct form of English usage and the ability to read and answer questions. Semantic knowledge is the ability to paraphrase, knowledge of word meanings, and the relationships between words (Pearson & Johnson, 1978; Johnson & Pearson, 1978).

Of the three linguistic competencies that affect comprehension, Pearson and Johnson (1978), believe that the semantic system is the most important. "The closer the match between the syntactic and semantic information on a page of print and syntactic and semantic information in our heads, the greater the likelihood we will understand the text" (Pearson & Johnson,1978, p.12). Linguistic competence is essential for reading comprehension which makes language the medium of comprehension (Pearson & Johnson,1978).

Every person has his or her own personal dialect peculiar only to him or her. Each individual's language makes him or her unique. Teachers need to accept the dialect and not emphasize the correct pronunciation, so the student can concentrate on comprehension (Horn, 1970). Students with limited English proficiency, because of their cultural backgrounds, and many African American children who speak a non standard English, come to school with a linguistic disadvantage which many teachers feel will interfere with students' attempt to read and comprehend standard English (Horn,1970). The teacher usually rejects this language and therefore the student feels the teacher is rejecting him. In turn, the student rejects the school (Horn, 1970). Other children whose native

language is not English, usually receive sympathy from their teachers, however, blacks generally do not (Horn, 1970).

Two other factors that influence reading comprehension are interest and prior knowledge. If a student finds an article interesting to him, or related to his life, he will comprehend it better. In order to get a student to comprehend material that is not interesting, a teacher should promote interest prior to reading (Pearson & Johnson, 1978). What the student already knows about the reading selection makes it easier for him to comprehend. Comprehension is building bridges between the new and the known (Pearson & Johnson, 1978).

Motivation is another factor that influences comprehension. It is the main component of the reading comprehension process. Students are reluctant to read because they do not find school-based reading material meaningful or relevant, therefore they lack motivation (Pearson & Johnson,1978). Motivation is within the reader. Teachers offer incentives, reinforcements, feedback and other stimuli to try to increase a student's level of motivation (Bintz, 1997). If a student does not value reading for information and enjoyment, he may become a failure at reading. Fear and anxiety can sometimes improve an important part in comprehension test scores (Pearson & Johnson, 1978). For example, when a student knows he/she is going to be tested he/she appears to gain more from his/her reading, therefore their comprehension increases (Pearson & Johnson, 1978). Pearson & Johnson (1978) also state, students with the poorest reading behaviors are so fearful and negative that they cannot be motivated even by threat. In other words, if a student is too fearful, fight or flight takes place. In all, changing a student's motivational state will change his/her comprehension (Pearson & Johnson, 1978).

Reading ability is also a factor that affects comprehension. Students with higher reading ability comprehend more easily. It is difficult for the reader to comprehend if he cannot read (decode) the words on the page. Reading needs to be automatic, that is, readers are able to achieve word identification automatically (Pearson & Johnson, 1978). The reader who spends too much time on word identification has little or no attention left for processing the meaning in the message (Pearson & Johnson, 1978). Therefore, comprehension is minimal. To sum it up, comprehension is easier if the reader can read the words accurately and automatically (Pearson & Johnson, 1978).

The written message is another factor that influences reading comprehension (Pearson & Johnson, 1978). Many of the textbooks are written at a level far above the students reading abilities. It is easier to understand passages with frequently used words rather than unfamiliar words. Also, readers have more difficulty choosing the meaning of abstract words. If a text is filled with abstract words, it is harder to comprehend (Pearson & Johnson, 1978). According to Pearson & Johnson (1978), the longer and the more complex the sentences, the harder it is to understand the text. The way a story is structured can also have an effect on comprehension (Pearson & Johnson, 1978). Pearson and Johnson, 1978 use the example, cause and effect relationship is easier to comprehend than listing detail after detail.

The home environment also affects comprehension. Numerous studies have been done on the effect of income and socioeconomic status on academic achievement. Poverty means, basic needs often go unsatisfied, which makes it difficult for children to achieve in school. Family money is needed to satisfy basic needs first, and educational experience second (Horn, 1970). Poverty also

prevents many children from having the kinds of experiences that support the instructional efforts of the school. Things that are costly, such as, trips to cultural facilities, books in the home, and educational toys, are part of the background of middle class children which satisfy the educational needs (Horn, 1970). In addition, children of poverty, usually score low on standardized test (Bintz, 1997; Horn, 1970).

Parents also do not emphasize reading as they did in the past. Students do not discuss their reading at home. Reading at home (1.8 hours per week reading non-school material) has been replaced with television (21.4 hours per week), and playing videos (Bintz, 1997). To add, many parents do not take their children to the library. The base language and concepts children bring to school are critical to comprehension (Bintz, 1997). Parents can help their child improve reading comprehension by making sure their child understands and interacts with their world (Pearson & Johnson, 1977).

The school environment, which consist of teachers, classroom atmosphere, and peers, also has an impact on reading comprehension (Pearson & Johnson, 1977). Teachers can affect comprehension by the way they prepare students for reading, by the questions asked, feedback, modeling, incentives and reinforcements, atmosphere, and materials selected (Pearson & Johnson, 1977). However, according to Bintz, (1997) many teachers have little experience in selecting alternative or supplementary reading materials.

Teachers who do not teach reading also feel that they do not know how to teach reading (comprehension) in the content area. The teachers feel they were hired to teach a content area and now have to teach reading in order to teach the content, and in turn, are expected to raise test scores (Bintz, 1997).

The classroom also needs to have a positive environment. Emotionally the student needs to know it is okay to take risks.

Peer influence can have a negative effect on student's comprehension. (Pearson & Johnson, 1978). Peers can be cruel. They can ridicule a student to the point that he does not want to learn or try his best to succeed (Pearson & Johnson, 1978). Unfriendly competition can be harmful.

According to Bintz, (1997) other negative factors can influence reading comprehension, such as, poor readers use a smaller range of strategies to guide their reading. Students do little reading in school and for homework. Teachers spend less than 4 hours per year on staff development activities related to reading. Many schools do not have a reading class. It is merged with English/language arts. There are no programs that support teachers to share and discuss books and to emphasize the importance of reading books. Also, not enough money is spent on reading materials other than textbooks. Finally, many schools do not have a remedial program, reading specialist, or support to provide help to all the students who need it.

CHAPTER 3
THE SOLUTION STRATEGY
Literature Review

Increasing comprehension among students has been the focus of many experts and researchers in the field of reading. While some experts believe that teachers can only teach word recognition (and not comprehension), there are others who believe that comprehension can be modeled for students, therefore, providing them with the necessary cues and skills for comprehension (Pearson & Johnson, 1978). Although this argument, and several others in between, continue, there are some points upon which the experts agree, and some methods that have be proven through research and usage in the classroom.

As stated by Horn (1970) and restated by Rhodes and Shanklin (1993), there are several factors affecting comprehension. As the reader enters the classroom setting, low verbal skills, previous reading experience, knowledge of reading strategies, and interest in reading are factors that are already present and affect the way the student approaches reading material. Once inside the classroom, factors such as the relevance of the text to the student's experience, clarity of the text, vocabulary, and topic will affect the student's ability to process what is read. And, even within this situation, the time provided for reading, the strategies used, and the teacher's support, all play a significant role in whether or not the child will succeed in comprehending what is read.

The ability to understand what one reads is a vital skill in both childhood and adulthood. But, often, the reading materials in basal textbooks are not comparable to the type of reading materials these students will encounter in the real world. For this reason, along with others, many educators have moved toward using nonfiction trade books and materials in the classroom. As stated by Carter & Abrahamson (as cited by Palmer & Stewart, 1997), use of nonfiction trade books exposes students to the type of text they will encounter in "real world" reading. Nonfiction trade books, with their current themes and issues, also have the ability to hold the attention of restless readers (p. 631). Integrating these texts into the classroom allow students to become familiar with different types of texts. Students will also learn to use these texts as support for research and reports (p. 632).

Often ignored in the process of reading comprehension is the time before and after reading. These reading strategies prepare the reader to accept information, and help in processing after reading. Prior to reading, it is important to activate any related knowledge that the student may have. This gives the student something to relate the new information to. The reader should also be given a specific goal or purpose for reading - to gain information, to study for an exam, for pleasure, and so on. When given a purpose, the reader will know which approach to take toward the reading material. (Gunning, 1996).

Predicting is also a strategy for activating prior knowledge and encouraging students to read. It allows students to make use of what they already know while creating a need to know what happens next. When there is little prior knowledge, previewing is another strategy that might be used. During previewing, the reader looks over the title, illustrations, back cover, and other places to gain insight into the selection. Previewing and predicting are often used together. (Gunning, 198).

Another piece in the comprehension puzzle lies in the actual words of the text. As stated by Reutzel and Hollingsworth (1993), lack of comprehension may be related to the lack of decoding skills. These students often spend so much time attempting to decode that the actual meaning of the text is lost. For this reason, some students may require repeated readings before they can fluently read and comprehend text. It is also suggested that these students receive indirect instruction on various types of context clues, semantics, and inferences. Although all these methods are important, most context clues revolve around semantics; these include restatements, word substitutions, figures of speech, and common expressions (Johnson & Pearson, 1978). By gaining a greater understanding of how words are used, the reader is likely to have greater success in attempting to glean meaning from the text.

Another method for improving comprehension involves step-by-step approaches. The teacher directly instructs the students on how to use the

necessary pre, during, and post reading techniques for better comprehension. Katims and Harris (1997) talk about a cognitive strategy known as RAP. In this program, the acronym RAP stands for "Read a paragraph, ask yourself questions about the main ideas and details, and put the main ideas and details into your own words using complete sentences." (p. 118). "Once the student has learned the basics of RAP, the direct instruction continues as the teacher cues the student to actually use the strategy and reviews the steps of the strategy with students". (p.120). Research testing shows that students instructed with this strategy showed significant gains from pre to posttest.

Cunningham and Wall (1994) point out that the ability to read aloud proficiently and identify words does not guarantee comprehension. With this in mind, they have created a six-step framework for increasing reading comprehension. Steps one and two involve investigating the student's background experience, activating prior knowledge, and stating the purpose for specific reading assignments (to answer questions, for discussion purposes, to learn the meaning of unfamiliar words, etc.). Step three encourages students to read silently without taking notes because the note taking may sidetrack or slow down their reading. (p. 481-482).

Step four places students into groups where they can perform a task that shows they have an understanding of what has been read. The task of the group will vary based on the purpose for reading and what was read. During step five,

the students correct and evaluate their own performance though discussion and by using the text. The necessary corrections are also made. The final step, number six, is referred to as debriefing. Here, the teacher checks to see that students used comprehension strategies and are aware of what they have learned from the lesson. The goal is to have students perform these steps on a regular basis until they become automatic. It is reported that students respond favorably to these lessons. (p. 483-486).

Other step-by-step programs for improving reading comprehension include CORI and reciprocal teaching. As stated by Guthrie, Alao, and Rinehart, Concept-Oriented Reading Instruction (CORI) is designed to engage students in literature. (p. 438). CORI begins with placing a heavy focus on motivating students to want to read. It is believed that if students are motivated intrinsically to read, then they will want to do a better job of it. Once the students are motivated through various techniques, the other steps, such as social interaction, conceptual understanding, and strategies for learning are added in, thus rounding out this program. (p. 441)

Fielding and Pearson (1994) describe reciprocal teaching, a method that goes to the heart of reading comprehension. It uses the never-ending cycle that begins with students making predictions after briefly previewing the text. After reading a portion of the text, students stop to summarize what has happened so

far, clarify complicated areas, and question classmates to see if they comprehend what has been read so far. The goal in reciprocal teaching is to have an environment where students take apart the text to create their own meanings. (Palincsar et al., 1987).

Recently, there has been much discussion about graphic organizers. These charts, outlines, and grids serve as a way for students to express their thoughts, opinions, and ideas into a more graphic and visual format. (Bellanca, 1990). Some graphic organizers target specific skills such as comprehension, vocabulary, and pre and post reading strategies. The KWL is a graphic organizer that is used throughout the reading process. The "K" is used to check for prior knowledge, the "W" represent what the students would like to know before and during the reading, and "L" check for what was learned as a result of reading. Other graphic organizers, like "comparison alley", the "agree/disagree" chart, and many others require students to focus on the specific and necessary skills for comprehension.

One such graphic organizer mentioned by Emery (1996), is the story map. Story maps help students to identify important events and characters in a story. They also help the reader to see the events of the story from various perspectives and help the student gain greater understanding of the text as a whole. (p. 537-538). Research by Dunning (1990) (as cited in Emery 1996), has shown that students who use story maps are better able to identify the central

problem in a story and understand the characters better, thus improving their comprehension.

Emphasis has also been placed on allowing students the opportunities to work in groups. Once such technique used in reading comprehension is known as Literature Groups, or Literature Circles. In this format, the teacher may select several different books with similar themes, or they may be written by the same author. Students, in groups of 3-5, select one of the books for their group to read. Therefore, there may be one group of four reading The Diary of Anne Frank, while another group of four may read Number The Stars. In these groups, each student is assigned a role with responsibilities related to the reading. For instance, one person may be responsible for unfamiliar words while another is responsible for documenting the main events of the story. Although there are several ways to set up Literature Circles, the key is to allow students to interact with others while interacting with the text. (Strube, 1996). In Best Practice (Zemelman, et al., 1993), the authors describe an actual classroom where Literature Circles are in use. The teacher of this fifth grade classroom in inner-city Chicago acts more as a facilitator, allowing the students to conduct their own group discussions of the text. She monitors the progress of each group, sometimes briefly joining the conversation. She states that as a result of using Literature Circles in her classroom, the students are more eager to meet in groups, they enjoy being in charge of their own discussions, they read more

during their free time, and they make more productive use of the library. (p. 22-23).

Another approach, known as instructional conversation, allows the class as a whole to become engaged in a discussion of the text. These discussions promote analysis, reflection, and critical thinking. (Goldenberg, 1992). The teacher facilitating the discussion selects and presents thought provoking questions to elicit responses. These discussions, while revolving around the reading assignment, allow students to incorporate prior knowledge, express and support opinions, and search for deeper meaning, They move away from questions with only one correct answer, allowing students to feel more comfortable presenting their opinions. When planned correctly, these discussions resemble unstaged, yet connected conversation. (p. 319).

After all is said and done, there are some basic comprehension techniques and approaches frequently recommended by researchers and educators simply because the are tried and true. First, there must be an emphasis placed on comprehension. Readers must know what they are expected to gain from a particular selection. Therefore, reading must be taught as a process: a series of steps including pre, during, and post reading strategies to help the student gain understanding. (Zemelman,et al., 1993) Students should also be given ample time and assistance to complete each of these steps. Assistance may range from the direct instruction of a specific skill, to simply

restating the purpose for the reading. One researched model involves having the teacher model the strategy, guided practice for the students where they gradually incorporate the strategy into their regular reading habits, independent practice, and then feedback for both the teacher and the student. The goal is to see students incorporating these strategies into real reading situations. (Fielding & Pearson, 1994).

Fielding, Pearson, and Zemelman also agree that students should have some choice in what they read. (1994, 1993). Anderson, (1987, as cited in Fielding and Pearson), stated that "choice is related to interest and motivation, both of which are related directly to learning." This choice is actually possible in a classroom where the teacher uses Literature Circles. This goes hand in hand with other highly recommended approaches – grouping students by reading interests or book preferences, and allowing students to collaborate on discussions and activities.

Just as important as techniques are the materials being read, teachers should expose students to a wide range of rich and meaningful reading materials. This exposure should not be limited to reading class, considering comprehension is vital to all subjects. Trade books, novels, newspapers and such are necessary for student to make the connection between reading comprehension and real world reading (Zemelman, et al., p.45).

Perhaps the most important step in promoting reading comprehension is getting students to read on their own time. Many schools set aside school time for sustained–silent reading programs. Researchers now say that setting aside time simply isn't enough (Fielding & Pearson, 1994). This reading time must be followed meaningful discussions or activities that raise the status of silent reading and allow time for processing and further comprehension. (p. 64).

As stated in Fielding and Pearson, "researchers seem to pit approaches against one another instead of exploring how a particular innovation might operate as part of a total program."(p.67). And while some approaches are inefficient, there are enough proven and effective methods available for a teacher to not feel limited to just one. A well–rounded program, incorporating several approaches, gives every student the opportunity to find a place to fit in and succeed in the classroom. (p.67)

Project Objectives and Processes

As a result of the implementation of methods and strategies to improve reading comprehension, during the period of September 1999 to January 2000, the targeted students in first, fifth and eighth grade will exhibit improved results on exams, greater understanding of materials covered in class, and better summarizing and processing skills, as measured by pre and posttest, student portfolios, and classroom activities. In order to accomplish this, the following processes are necessary.

1. Reading level appropriate materials that challenge students without overwhelming them, will be used.

2. Teacher created lessons that target specific identified deficiencies in reading comprehension will be implemented.

3. Activities related to cooperative learning and multiple intelligences will be used to further develop targeted skills.

4. Strategies and techniques that instill and review basic comprehension skills will be included.

The following are components to the solution:

1. Students will be administered diagnostic tests to assess specific weaknesses in comprehension.

2. Students will work in cooperative learning groups. These groups will be constructed so that they include students with varying reading ability. In these groups, students will participate in literature circles and other activities to promote comprehension both during and after reading.

3. Students will be given opportunities for sustained silent reading. Teachers will maintain a print rich environment that makes reading materials readily available. The amount of time given each week will vary at each site due to age differences.

4. Students will be encouraged to use graphic organizers to retell stories, take notes during reading, draw conclusions, and find major ideas in reading materials.

5. Students will be randomly assigned take-home "books in a bag," along with a list of questions to be completed by students, with the help of parents.

6. Teachers will maintain individual portfolios for recording the progress of each student's progress. Materials in the portfolio will include a skill check list, pre and posttest scores, and samples of student work.

Action Plan for Intervention

The action plan is presented in outline form by five-day weeks rather than specific dates. The schedule covers a time frame beginning with the week of September 27, 1999 (first day of intervention), and ending the week of January 31, 2000. Due to standardized testing and holidays, dates are subject to minor change.

Week 1 – Introduction to cooperative learning

Week 2 – Following written and oral directions

Week 3 and 4 – Word association and vocabulary skills

Week 5 – Inferences and context clues

Week 6 and 7 – Cause and effect, character traits, predictions, and summarization

Week 8 – Book packets and use of multiple intelligences for summarization

Week 9 – Graphic organizers, sequencing, and mind mapping

Week 10 – Jigsawing and Literature circles

Week 11 – Drama and role playing (using multiple intelligences, especially bodily kinesthetic)

Week 12 – Book packets

Week 13 – Jigsawing and Literature circles

Week 14 – Real world reading

Week 15 – Graphic organizers

Week 16 – Story mapping

This intervention will gradually introduce fundamental comprehension techniques, building one skill upon the next. Once a skill is introduced, it will become a regular part of instructional procedure.

Methods of Assessment

In order to assess the effectiveness of the intervention, the following tool and procedures will be followed.

1. Parent Survey - To obtain the parent's perspective on student's at-home reading habits.
2. Student Survey - To see how the student's views his own reading comprehension skills and interests.
3. Pretest - To see where student's abilities stand prior to intervention.
4. Student Portfolios - Maintained by teacher for the collection of work samples, test results, and related materials.
5. Posttest - To measure abilities after intervention.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of this project was to increase the comprehension skills of students in the previously mentioned 1st, 5th, and 8th grade classes. The implementation consisted of methods and techniques suggested in journals, textbooks, and courses on reading and comprehension. Pretests to gauge students' skills prior to interventions were administered in October 1999. Posttests to gauge progress were then administered in March 2000.

School A

Prior to the beginning of school, the researcher created book packets. Each book packet contained a story map or a list of comprehension questions that related to the assigned story for the week. Each child who received a book packet was told to complete the packet with the help of a parent or guardian. The above activity was designed to help develop and enhance cause & effect, inference, main idea, and details.

Throughout the sixteen-week intervention the researcher planned lots of activities that were designed to help students work with one another cooperatively. The first activity was following oral and written directions. Students were introduced to a "People Search". All students were given a sheet of paper. On the paper were listed a series of ten questions. Students were told

to go around the room and find someone who could answer one of the questions that was listed. Once they found the person students were told to have the student sign his/her name next to the question. The researcher told the students that the signature verified that particular person knew the answer to the question that was asked. This activity helped to develop following oral and written directions.

During the sixteen-week intervention plan students were introduced to graphic organizers (Venn diagram, web, and story pyramid). (Appendices F - H) These graphic organizers were designed to help retain information and build on prior knowledge of comprehension skills. The researcher had students complete a graphic organizer in a large group or divide into smaller groups. Once they were arranged into groups each student was assigned to read the story of the week. After the story was read, students had to complete a graphic organizer with their group. Toward the end of the intervention, students had to complete a graphic organizer individually. The above activity was designed to help enhance comparison, following directions, and sequencing.

A technique that was used to develop context clues, details, prediction, cause & effect, and comparison was story prediction. Before introducing a new story, each student was told to look at the illustrations and the title of the story. Afterwards, each was told to make a prediction about the story. Students were

told to make predictions by reading the title of the story and by looking at the illustrations. Once the predictions were orally stated, the researcher listed all predictions on chart paper. After the researcher listed predictions onto paper students were told to listen to the researcher read the story. Once the researcher finished reading the story students were asked to look over the predictions that were listed and quietly walk to the board and cross off one detail that did not happen in the story. After they crossed off a detail that did not happen, they were told to add something to the list that did happen in the story. After new details were added to the chart, the predictions were hung in the room until the end of the week. Students used the prediction chart as a reference guide to other activities that related to this story.

Another strategy that was used to increase reading comprehension was vocabulary skills and word association. Before the introduction of each new story the researcher would introduce vocabulary words by using an anticipatory guide/graphic organizer. Along with the introduction of each new word was a brief description of the word meaning. Students were asked to read a vocabulary word and use the new vocabulary word in a sentence. After the introduction of the new words and their meanings, students were asked to write sentences using the vocabulary word correctly. At the end of the week students were given a written and oral test on vocabulary words. The oral test consisted of students reading vocabulary words off an index card to the researcher. The written test

was a fill-in-the-blank. This test was created to help students identify the correct use of a word.

The researcher at School A did not create or develop the following activities: jigsawing, mind mapping, drama and role playing, or real world reading, due to lack of time and to the age/ability of students. However, Literature circles were tried, but not successful, due to the age of the students and their ability to work independently.

School B

In an attempt to increase student reading comprehension, every month the researcher would read a chapter book, such as, Haunted Mask I & II, Squanto, Best Christmas Pageant Ever, Leroy, and The Friendship and The Gold Cadilliac. Through the reading, the researcher would work on various comprehension skills such as, prediction, character traits, sequencing and comparison. With the use of role play, students would act out a scene or a chapter of the book, discuss and compare characters and their roles, feelings and attributes. Students would also predict what would happen next and why.

To help with sequencing skills, students would write down events from the book and give it to another student. That student had to put the events in order. The researcher would sometimes have the students create a timeline of the chapter or book. Many of the books also had a movie to go with it, therefore after

reading the book, we would watch the movie and the students had to compare the book to the movie using a graphic organizer.

Through the use of their social studies book, students mastered basic jigsawing. The group members taught the class, what they had learned. The groups had to accurately summarize what they had read. Students had to tell what the main idea was and create questions for the class to answer. They also had to show one type of visual aide, for example, a graphic organizer. This was an on-going intervention that was used almost weekly. As noted from teacher/researcher journal entries, most students responded positively after completing the activity. Typical responses were, "I like being the teacher," and "This is fun."

Progressing from the development of basic skills of jigsawing, Literature Circles were informally introduced. The discussion was also guided by Literature circles assignments and worksheets taken from the book 25 Reproducible Literature Circle Role Sheets for Fiction and Nonfiction. The class was divided into groups of four. Each student had a role that changed daily. The "time liner" told the story in order, "character sketcher" discussed the characters, " a common connector" compared what they had read to real life situations or another book, and a "conflict connector" had to find elements in their reading that had a cause-and-effect relationship.

Everyone in the group had the same Accelerated Reader library book. An Accelerated Reader book is a library book the students read and take a test on to earn points. After reading the book, the students had to take the test individually. The groups discussed and summarized what they read, with each

person playing their assigned roles. After the in-depth discussion, the group decided what pages to read and assigned new roles for the next classroom session. After the completion of the book, the groups, playing their four roles, had to report about their book to the class using visual aides.

At the beginning of the intervention process for this research project, one of the first priorities was to develop the skills of following written and oral directions necessary for the successful implementation and maintenance of reading comprehension. One of the activities that enhanced following oral and written directions was drawing a three-part animal/human. It had to have a head, body, and tail/legs. The student had to write specific directions for drawing his selected picture. Next, the student gave the directions to his partner and his partner had to draw the exact picture from the student's directions. In another variation of this activity, the researcher had the students build an object (using marshmallows or gumdrops and pretzels or toothpicks). Then the student wrote or told the other students how to build a replica.

Due to time management and preparation for standardized test, the researcher did not incorporate the following activities from the action plan for the intervention: book packets, real world reading, mind mapping, and readers theater.

School C

After pretesting was completed, the researcher at School C began implementing lessons in accordance with the Action Plan for the Intervention. Almost immediately, it became apparent that following the exact order of the skills as they were listed on the plan would be difficult. The researcher then decided to target the skills listed, but in a more random order. Skills were then targeted as they became logically necessary as part of various assignments. For the sake of simplicity, the lessons and targeted skills will be reported in this section in the order that they appear in the Action Plan for the Intervention.

Cooperative learning lessons implemented by this researcher overlapped into different targeted areas of comprehension. An example was the point-of-view fairytales. Students were first read the traditional version of The Three Little Pigs, followed by the contemporary story The True Story of the Three Little Pigs...as told by A. Wolf. This was followed by a discussion using a Venn diagram, where students compared and contrasted the two stories. As a wrap-up, students were divided into groups of 4 and given a traditional fairy tale (such as Goldilocks and the Three Bears). Their task was then to re-write the tale from another character's point-of-view. Students then shared these stories aloud.

Following written and oral directions was another skill that overlapped into other areas and was targeted throughout the intervention. Directions were

frequently given in more than one format. For example, directions written on the overhead were also read aloud and analyzed for understanding prior to beginning an assignment.

After reviewing pretest scores, the researcher at School C noticed student weaknesses in the area of word association, inference, and using context clues. A vocabulary activity called "+✓0" began with students being given a list of challenging words from a reading selection prior to the reading. Students marked + if they knew the word and could give the definition of it. If students were somewhat familiar with the word, it was then marked with a ✓. Finally, if students had no idea of the word's meaning, they marked it with 0.

The reading textbook at School C gave the page number where vocabulary words could be found in context. Prior to reading the text, students found these words, wrote down the original sentence in which they were used, and attempted to use the context to infer the definition of the words they were unfamiliar with. Then the class went over their findings aloud, asking how and why they had come to their conclusions. Finally, students checked their definitions for accuracy in the glossary, and went on to read the story. Vocabulary was checked again after reading the story.

Graphic organizers and class-wide discussions were used in targeting various areas of reading comprehension. An organizer, called the "Prediction

Tree", allowed students to make predictions as long as they found at least two supporting reasons from the text. The "Who Am I" is another organizer used by students to recognize character traits, both implicit and explicit, through examining the text. The "K-W-L" was also used as a pre, during, and post reading organizer.

The researcher at School C also relied on jigsawing and Literature circles to improve reading comprehension skills. A unit on The Legend of Sleepy Hollow required students to jigsaw the first three parts of the story in groups of three. After both an expert and regular jigsaw, students used pieces from the "Puzzler" graphic organizer to take notes on their section to share with their group. After making predictions on the "Prediction Tree", the entire group was given part four to read. After post-reading activities, students rejoined their jigsaw groups, along with their "Puzzler", to complete the exam on the story.

Literature circles also required students to work in groups to complete readings and other activities. The researcher selected three novels with similar themes: The Glory Field by Walter Dean Myers, The Devil's Arithmetic by Jane Yolen, and The House of Dies Drear by Virginia Hamilton. Students were allowed to select one of the novels, and then they were placed into groups based on that selection.

The "circle" part comes from the way reading and discussion days rotated. For example, Mondays and Thursdays were designated as days when students

would read the text in class. They were allowed to read silently alone or aloud in their groups. Tuesdays and Fridays were discussion days. This was when students had the opportunity to discuss, review and question the text with their group. The discussions were also guided by Literature circle assignments and worksheets taken from the book 25 Reproducible Literature Circle Role Sheets for Fiction and Nonfiction. Tests and quizzes on the novel were taken both individually and as a group. After completing the novel, groups completed several wrap-up activities, and a book-talk before taking the final test was taken individually.

For drama and role playing, the researcher had students read and act out several plays from the textbook and outside sources. To conclude, students acted out an age-appropriate version of Hamlet from Scope magazine. As pre and post reading activities, students completed a K-W-L, prediction tree, and crossword puzzle. They also wrote letters to Hamlet from the point -of-view of Hamlet's mother and girlfriend. As a wrap up, they watched the HBO animated version of the play. Then, students selected plays and recorded their own dramatic scenes.

There were some areas mentioned in the Action Plan for Intervention that were not covered by the researcher at School C. The researcher did not use book packets because they seemed more appropriate for students in earlier

grades. Both real world reading and mind mapping were eliminated due to a lack of time.

Presentation and Analysis of Results

School A

Tables 3 and 10 show both pretest and posttest scores for first grade students at School A. The data in these tables, in its raw form, shows how many students answered a particular number of questions correctly. For example, the posttest on main idea consisted of 4 questions. Seven students answered 4 questions correctly, while six students answered 3 questions correctly.

Major strengths that were seen in posttest scores were quite surprising. Posttest scores increased dramatically in the following areas: details, sequence, and comparison.

At School A there was a slight increase in posttest scores compared to pretest scores. Pretest scores for details were 80.13%. Posttest scores for details were 84.06%. There was a 5% increase between pretest and posttest scores. Another increase in pretest and posttest scores was sequence. On the pretest the average score is 91.88%. Posttest scores for sequence were 95.8%. Once again, there was a 5% increase between both scores. Comparison showed a slight increase. Pretest scores for comparison is 74.36% compared to

Table 3
School A
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11
Main Idea	0	0	0	3	6	7						
Details	0	0	2	0	3	4	6					
Sequencing	1	0	0	0	0	0	0	0	1	1	13	
Predicting	0	0	0	0	0	0	0	0	0	2	6	8
Character												
Cause and Effect	0	0	0	0	0	0	16					
Comparison	0	0	0	0	1	0	5	7	1			
Following Directions	0	0	0	0	0	0	0	1	5	10		
Inference	0	0	0	0	2	4	10					

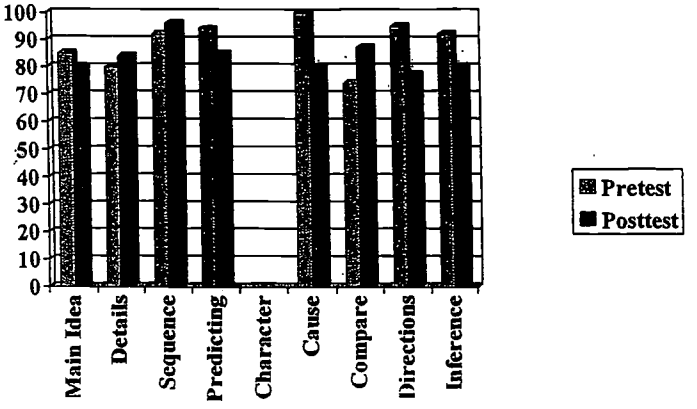
N=16

Table 10
School A
Posttest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11
Main Idea	0	1	2	6	7							
Details	0	0	0	2	1	1	8	4				
Sequencing	1	0	1	0	0	0	15					
Predicting	2	0	1	13								
Character												
Cause and Effect	0	1	2	6	7							
Comparison	0	0	0	1	0	1	2	9				
Following Directions	2	0	2	0	2	2	8					
Inference	0	1	3	4	8							

N=16

Chart 1
School A
Comparison of Pre and Posttest Scores



the posttest score of 87.44%. There was a 13% increase.

Major weaknesses in posttest scores included main ideas, predicting, cause & effect, following directions, and inference. As noted in the historical description of the intervention there was a discrepancy in test scores. The researcher at School A read the pretest to students. However, students read the posttest individually without help from the researcher. The researcher read the test to the students because the majority of students entered the class as nonreaders.

There was a major decline in cause & effect posttest scores. Pretest scores for cause & effect were 100% and posttest scores were 79.69%. Another weakness at School A was following both oral and written directions. This came as no surprise because this group of students had a hard time, since the beginning of the school year, with following oral and written directions. Pretest scores for following directions were 95.19% and posttest scores were 77.06%, most likely resulting from the administration of the test.

Pretest scores for main idea were 85% and posttest scores were 79.69%. There was a slight decrease of 5% between pretest and posttest scores. Pretest scores of predicting were 94.38% and posttest scores were 85.37%. Once again, there was a slight decrease in scores, partly explained by the different administration procedure.

Posttest scores also decreased in inference. Pretest scores were 91.63% and posttest scores were 79.69%. There was an 11% decrease in test scores.

School B

Tables 6 and 11 show both pretest and posttest scores of the 11 and 9 5th grade students tested at school B. The data in these tables, in its raw form, show how many students answered a particular number of questions correctly. For example, the posttest consisted of 6 questions; four students got all 6 questions correctly, while three students answered 5 out of 6, and 2 students answered 2 questions correctly.

As evidenced by the data, seven of the nine reading comprehension skills increased, by a range of 4 to 37%. However, details and predicting skills decreased respectively, 3% and 10%. In analyzing the data, significant gains were noted in the areas of cause and effect, comparison, sequence, and following directions. But, students at School B continued to struggle when it came to inference, which only had a 4% increase.

It also was noted from the researcher's journal entries that there was a 37% increase in following oral and written directions. On the pretest, they had to list things on a map, of which they may not have had prior knowledge. However, on the posttest, they had to list things and draw things with which they were more familiar. This could have caused the significant increase.

Table 6
School B
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	2	1	1	2	5				
Details	0	0	0	3	1	0	5	2			
Sequencing	0	0	3	0	0	1	0	0	1	0	6
Predicting	0	0	2	2	7						
Character	0	0	3	0	6	2					
Cause and Effect	0	3	1	5	2	0					
Comparison	0	3	3	4	1						
Following Directions	4	0	0	6	1	0	0	0	0		
Inference	0	0	0	2	2	1	6	0	0		

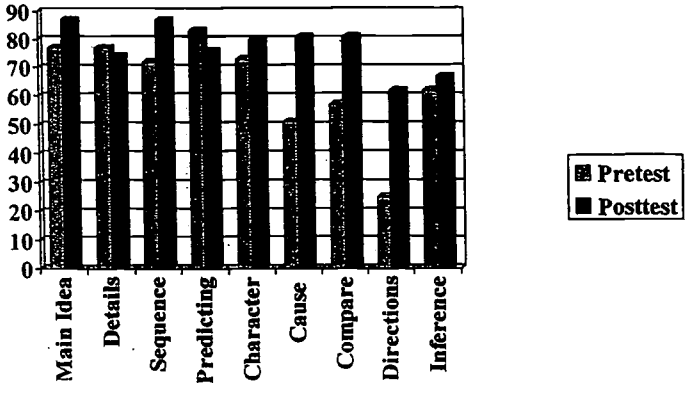
N=11

Table 11
School B
Posttest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	0	0	2	3	4				
Details	0	0	0	2	0	5	1				
Sequencing	0	0	0	0	0	0	2	0	2	0	5
Predicting	0	0	1	2	4	2					
Character	0	0	0	1	7	1					
Cause and Effect	0	0	3	1	5						
Comparison	0	0	0	0	1	1	0	1	2	1	3
Following Directions	0	0	0	0	3	0	2	0	4	0	0
Inference	0	1	2	5	1						

N=9

Chart 2
School B
Comparison of Pre and Posttest Scores



The researcher discussed various wars from the social studies book throughout the year. Students and teacher discussed the various wars at length and analyzed them with cause and effect, comparison, and sequencing through graphic organizers, such as timelines, T-charts, grid charts, Venn diagrams, and the web. Numerous graphic organizers were selected and used throughout the action plan in order to reinforce and practice various reading comprehension skills. With aid and frequent repetition, this reinforcement may account for the 15%, 24%, and 30% increase in sequencing, comparing and cause and effect respectively. This may suggest a positive movement toward improving reading comprehension skills.

School C

Tables 9 and 12 show both pre and posttest scores for eighth grade students at School C. The data in these tables, in its raw form, show the number of students who answered a particular number of questions correctly. For example, the posttest on main idea consisted of 4 questions. Thirteen students answered all 4 questions correctly, while three students answered only 2 questions correctly.

The results are more evident when viewing the comparison of pre- and posttest results shown in Chart C. The numbers along the left margin of the chart represent pre and posttest score averages. The titles across the bottom represent the areas in which students were tested.

Table 9
School C
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	0	1	4	10	12				
Details	0	0	2	2	17	1	5				
Sequencing	0	1	3	2	2	6	4	0	2	0	6
Predicting	1	3	5	8	9						
Character	0	0	5	10	8						
Cause and Effect	0	0	1	0	4	5	10	4			
Comparison	0	0	1	0	8	0	7	3			
Following Directions	0	2	2	3	6	2	5	2			
Inference	0	1	2	4	5	7	5				

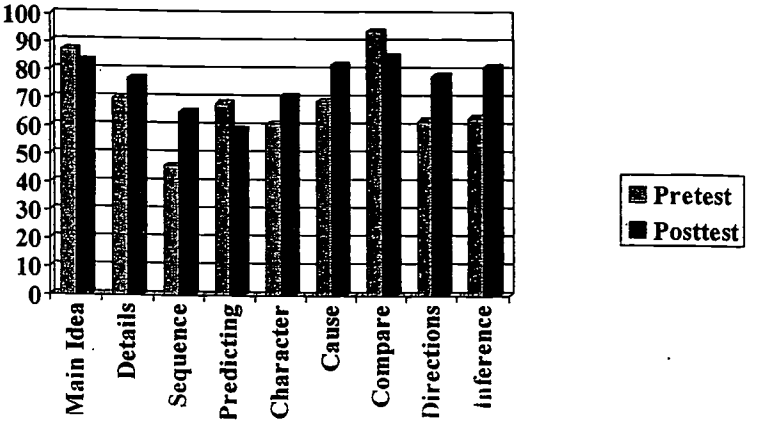
N=27

Table 12
School C
Posttest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Main Idea	0	1	3	9	13											
Details	0	0	1	7	9	9										
Sequencing	0	2	3	11	5	5										
Predicting	1	5	9	7	4											
Character	0	0	2	2	2	3	7	7	3							
Cause and Effect	0	0	1	4	0	4	4	13								
Comparison	0	0	1	4	9	12										
Following Directions	0	0	3	2	5	7	9									
Inference	0	0	0	0	0	0	1	0	0	1	4	2	6	4	5	3

N=26

Chart 3
School C
Comparison of Pre and Posttest Scores



With the exception of predicting and comparison, students made gains or stayed consistent in all areas. Inference reflected one of the greatest gains, rising from a pretest average score of 63% to a posttest average of 81%. Cause and effect, and sequencing also started out relatively low, with pretest scores and average of 69 and 46%, respectively. Those scores rose to 82 and 65% on posttests. This rise in scores is attributed to lessons from the Action Plan that focused on these specific skills. This improvement has also been noted in student's grades and performances in the classroom.

Scores in the areas of details, sequencing, character traits, and following directions also showed an increase. These were skills specifically targeted by roles used in Literature circles. Graphic organizers and Socratic-style classroom discussions are also credited with the increases in these areas.

In the areas of main idea and comparison, a slight decline in scores was noted. Pretest scores of 87 and 94% (respectively) dropped to 83 and 85%. Since students had done so well in these areas, they were not as heavily focused on during the Intervention. This may have led to the slight decline in scores.

Conclusions and Recommendations

Overall, researchers at all sites felt that the intervention did have a positive effect on comprehension skills. The results were consistent across the wide age range of students. Scores even rose at School A where many of the first grade students were just learning to read.

Finding a similar pre and posttest for such different age levels was a challenge. In the future, researchers would locate tests that check for proficiency in more than one skill at a time. This would make pretesting less time consuming and easier to score. Also, tests with the same number of questions on both the pre and posttest would make the comparison of results easier.

In retrospect, researchers would hope to have more foresight in writing the Intervention Plan. Some activities, such as mind mapping and real world reading had to be eliminated due to a lack of time. A less ambitious plan, focusing on 3-5 specific techniques, might be easier to manage. The plan would also be more flexible, allowing researchers to implement skills in a more logical fashion.

The students did seem to enjoy the activities used in the intervention. The most positive response with the 5th and 8th grade students came from the Literature circles. Students enjoyed being able to work in groups and learn from each other. First grade students enjoyed the graphic organizers used to aid comprehension. They now ask for graphic organizers by name.

As teachers, we learned that the consistent use of techniques yields greater results. Therefore, rather than jumping from one technique to another, we recommend selecting 3-5 that are proven and sticking with them. Literature circles, graphic organizers, and jigsawing are highly recommended at techniques that students will both enjoy and benefit from.

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Appendix A

Student Survey

1. Do you enjoy reading?

   yes no

2. What things do you like to read?

   magazines newspapers comic books

3. How often do you read a week?

   less than 1 hour 2-3hours 4 hours or more

4. What do you like more reading or being read to?

   reading being read to

5. Are you able to retell what you have read?

   often sometimes rarely

6. Do you have a favorite place to go when you read? _____

7. Are there other members in your family who likes to read? _____

8. Where do you think you read?

   at grade level above grade level below grade level

*9. Do you go to the community library? _____ How often?_____

*10. Do you go to the school library? _____ How often?_____

Appendix A

*11. What library books are you presently reading?_____

*12. What library books have you read this year?_____

Questions that are marked with an *are adapted from Informal Tests for Diagnosing specific Reading Problems, Stephen A. Pavlak, Ph.D(1985)

Appendix B

Parent Survey

Please complete and return the following survey. Do not use your name - your responses will remain anonymous.

1. How often do you read to your child in a week?
   once three times more than three times

2. For how many minutes (total) do you read to your child in a week?
   less than 30 30-60 more than 60

3. How often do you take your child to the library?
   Once a week one to two times a month once every three months

4. How often do you purchase books for your child?
   frequently sometimes rarely

5. What types of reading material do you purchase for your child? (Circle all that apply).
   magazines comics children's books other_____

6. Do you listen to your child read? always sometimes rarely

7. Do you set aside a special time for your child to read? yes no

8. If so, how much time is set aside? _____minutes

9. How frequently do you set aside time for your child to read?
   daily one to two times a week more than three times a week

10. Do you visit the bookstore with your child? yes no

*11. What reading materials are available in your home? (Circle all that apply).
   books magazines newspapers children's books other_____

*12. Are you aware of any speech problems that your child has? yes no

*13. Does your child have any visual impairments? yes no

*14. Does your child wear glasses? yes no

*15. Does your child have any hearing problems? yes no

*16. If so, does he/she use a hearing aid? yes no

*17. Has your child had any tutoring in reading? yes no
When?_____ By whom?_____

*18. Did you see positive results from the tutoring? yes no

19. Where would you place your child's reading abilities?
above grade level at grade level below grade level

20. How many minutes per week do you read?
less than 30 minutes 30 to 60 minutes more than 60 minutes

21. How often do you have the opportunity to read with your child in a week?
once a week three times a week more than three times a week

THANK YOU FOR TAKING TIME TO COMPLETE THIS SURVEY.

*Questions adapted from Informal Tests for Diagnosing Specific Reading Problems. Stephen A. Pavlak, Ph.D. (1985).

missing 2 surveys

School A

Student 16 surveys

1. yes |||| |||| |||| no |

2. picture books | story books |||| |||| ||||

missing 1

never || 3. 1 | 2-3 |||| 4-5 |||| (sometimes) |

4. reading |||| |||| being read to |||| |

5 yes |||| |||| ||| no ||

6 bookstore, downstairs, none, basement, parents rm, Clubhouse, bedroom, living room

7. brothers |||| | Mom |||| |||| | Dad |||| |||| | sister grandma |

omit 8

9. 1 week |||| 2-3 4-5 never been |||| ||||

10. yes |||| |||| |||| no

Appendix C

16

School B

Student Survey

1. Do you enjoy reading?

   yes 15 no

2. What things do you like to read?

   magazines 8 newspapers 3 comic books 5

3. How often do you read a week?

   less than 1 hour 10 2-3hours 5 4 hours or more 1

4. What do you like more reading or being read to?

   reading 13 being read to 3

5. Are you able to retell what you have read?

   often 4 sometimes 12 rarely

6. Do you have a favorite place to go when you read? no 3 yes 13

7. Are there other members in your family who likes to read? 15 yes 1 no

8. Where do you think you read?

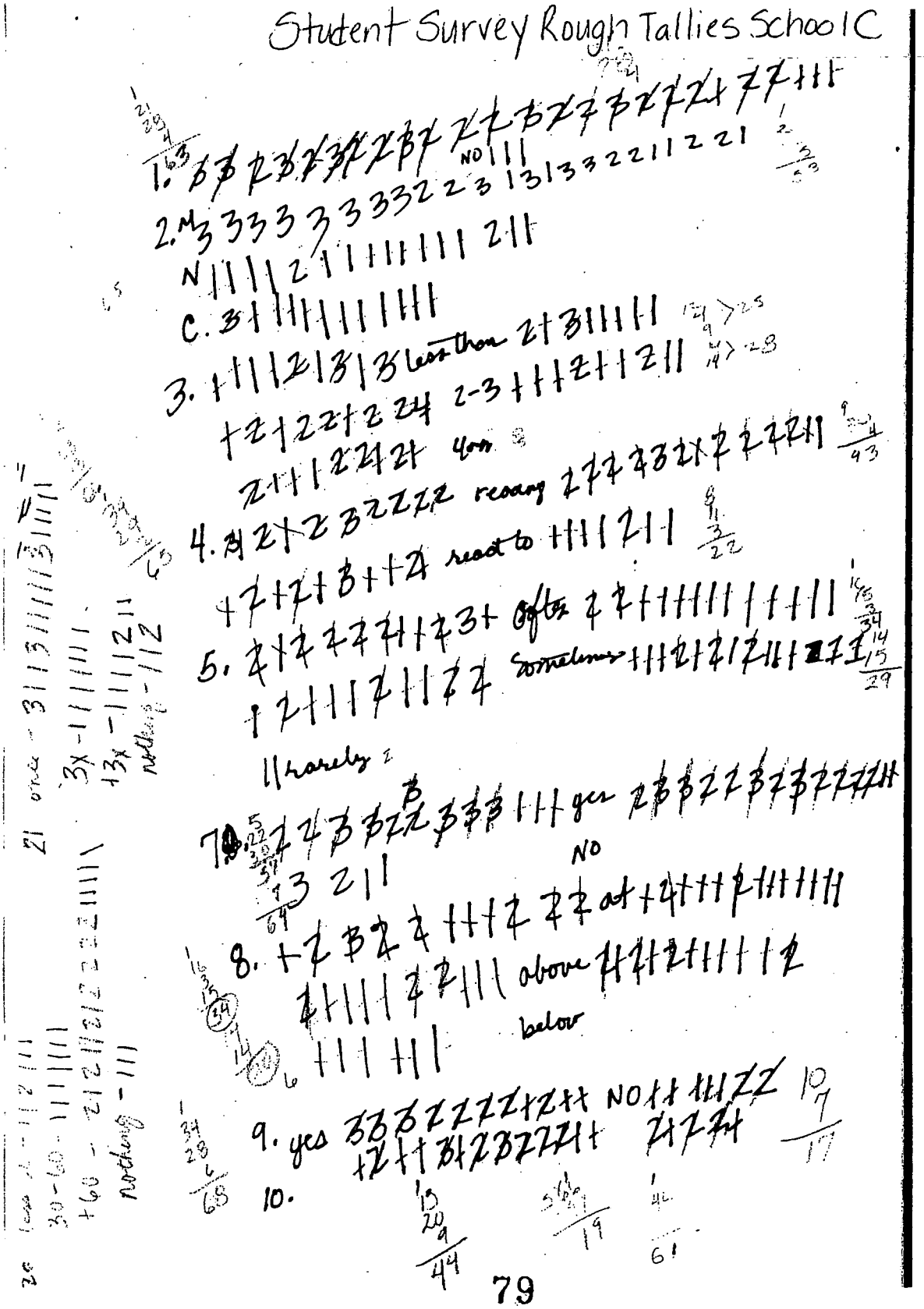
   at grade level 9 above grade level 6 below grade level 1

*9. Do you go to the community library? yes 10 no 6 How often? _____

*10. Do you go to the school library? 16 How often? once a week

(11) (12)

Appendix C



Appendix D

Table 3
School A
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11
Main Idea	0	0	0	3	6	7						
Details	0	0	2	0	3	4	6					
Sequencing	1	0	0	0	0	0	0	0	1	1	13	
Predicting	0	0	0	0	0	0	0	0	0	2	6	8
Character												
Cause and Effect	0	0	0	0	0	0	16					
Comparison	0	0	0	0	1	0	5	7	1			
Following Directions	0	0	0	0	0	0	0	1	5	10		
Inference	0	0	0	0	2	4	10					

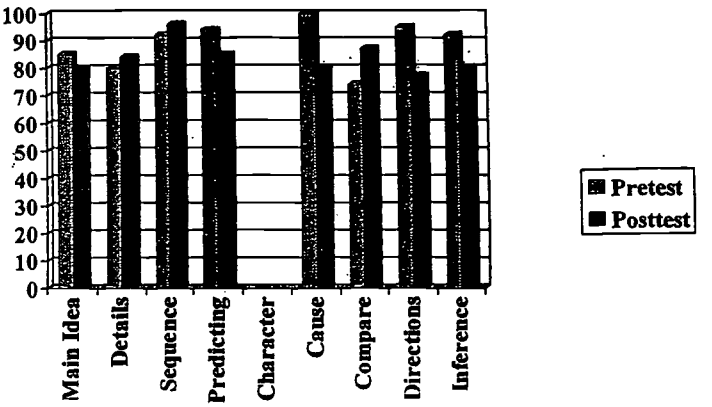
N=16

Table 10
School A
Posttest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11
Main Idea	0	1	2	6	7							
Details	0	0	0	2	1	1	8	4				
Sequencing	1	0	1	0	0	0	15					
Predicting	2	0	1	13								
Character												
Cause and Effect	0	1	2	6	7							
Comparison	0	0	0	1	0	1	2	9				
Following Directions	2	0	2	0	2	2	8					
Inference	0	1	3	4	8							

N=16

Chart 1
School A
Comparison of Pre and Posttest Scores



Appendix D

Table 6
School B
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	2	1	1	2	5				
Details	0	0	0	3	1	0	5	2			
Sequencing	0	0	3	0	0	1	0	0	1	0	6
Predicting	0	0	2	2	7						
Character	0	0	3	0	6	2					
Cause and Effect	0	3	1	5	2	0					
Comparison	0	3	3	4	1						
Following Directions	4	0	0	6	1	0	0	0	0		
Inference	0	0	0	2	2	1	6	0	0		

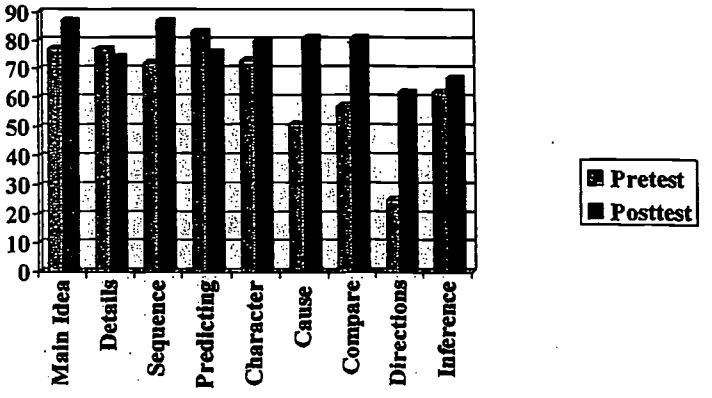
N=11

Table 11
School B
Posttest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	0	0	2	3	4				
Details	0	0	0	2	0	5	1				
Sequencing	0	0	0	0	0	0	2	0	2	0	5
Predicting	0	0	1	2	4	2					
Character	0	0	0	1	7	1					
Cause and Effect	0	0	3	1	5						
Comparison	0	0	0	0	1	1	0	1	2	1	3
Following Directions	0	0	0	0	3	0	2	0	4	0	0
Inference	0	1	2	5	1						

N=9

Chart 2
School B
Comparison of Pre and Posttest Scores



Appendix D

Table 9
School C
Pretest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10
Main Idea	0	0	0	1	4	10	12				
Details	0	0	2	2	17	1	5				
Sequencing	0	1	3	2	2	6	4	0	2	0	6
Predicting	1	3	5	8	9						
Character	0	0	5	10	8						
Cause and Effect	0	0	1	0	4	5	10	4			
Comparison	0	0	1	0	8	0	7	3			
Following Directions	0	2	2	3	6	2	5	2			
Inference	0	1	2	4	5	7	5				

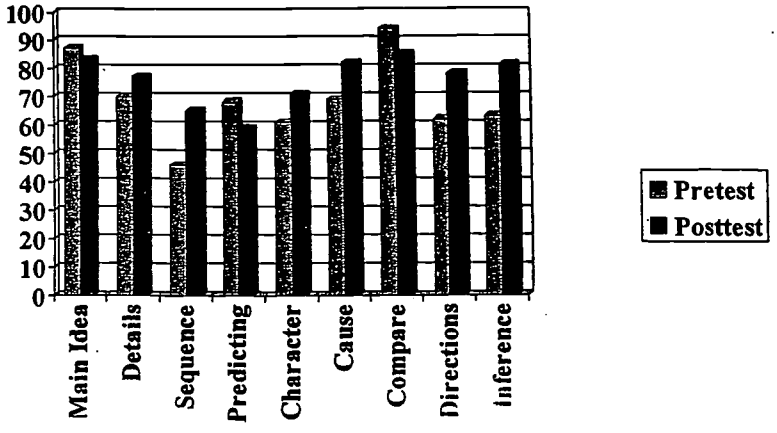
N=27

Table 12
School C
Posttest on Reading Comprehension Skills

SKILL TESTED	NUMBER CORRECT 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Main Idea	0	1	3	9	13											
Details	0	0	1	7	9	9										
Sequencing	0	2	3	11	5	5										
Predicting	1	5	9	7	4											
Character	0	0	2	2	2	3	7	7	3							
Cause and Effect	0	0	1	4	0	4	4	13								
Comparison	0	0	1	4	9	12										
Following Directions	0	0	3	2	5	7	9									
Inference	0	0	0	0	0	0	1	0	0	1	4	2	6	4	5	3

N=26

Chart 3
School C
Comparison of Pre and Posttest Scores



Appendix E

School A

Parent Survey

Please complete and return the following survey. Do not use your name - your responses will remain anonymous.

1. How often do you read to your child in a week?
   once 2 three times 4 more than three times 11

2. For how many minutes (total) do you read to your child in a week?
   less than 30 5 30-60 10 more than 60 2

3. How often do you take your child to the library? (3 didn't Circle)
   Once a week 1 one to two times a month 4 once every three months 7 never 1

4. How often do you purchase books for your child?
   frequently 8 sometimes 6 rarely 3

5. What types of reading material do you purchase for your child? (Circle all that apply).
   magazines 3 comics 2 children's books 17 other_____

6. Do you listen to your child read? always 13 sometimes 4 rarely 2

7. Do you set aside a special time for your child to read? yes 14 no 3

8. If so, how much time is set aside? _____minutes

9. How frequently do you set aside time for your child to read?
   daily 7 one to two times a week 6 more than three times a week 3

10. Do you visit the bookstore with your child? yes 14 no 3

*11. What reading materials are available in your home? (Circle all that apply).
   books 17 magazines 17 newspapers 12 children's books 17 other 4

*12. Are you aware of any speech problems that your child has? yes: no yes

*13. Does your child have any visual impairments? yes 2 no 15

*14. Does your child wear glasses? yes 2 no 15

*15. Does your child have any hearing problems? yes 1 no 16

*16. If so, does he/she use a hearing aid? yes no 1

17 parent surveys

*17. Has your child had any tutoring in reading? yes: no 17
When?_____ By whom?_____

*18. Did you see positive results from the tutoring? yes no

19. Where would you place your child's reading abilities?
above grade level 2 at grade level 13 below grade level 2

20. How many minutes per week do you read?
less than 30 minutes 30 to 60 minutes 4 more than 60 minutes 13

21. How often do you have the opportunity to read with your child in a week?
once a week 2 three times a week 5 more than three times a week 10

THANK YOU FOR TAKING TIME TO COMPLETE THIS SURVEY.

*Questions adapted from Informal Tests for Diagnosing Specific Reading Problems. Stephen A. Pavlak, Ph.D. (1985).

Appendix E

School B

Parent Survey

Please complete and return the following survey. Do not use your name - your responses will remain anonymous.

1. How often do you read to your child in a week?
   once three times more than three times
2. For how many minutes (total) do you read to your child in a week?
   less than 30 30-60 more than 60
3. How often do you take your child to the library?
   Once a week one to two times a month once every three months
4. How often do you purchase books for your child?
   frequently sometimes rarely
5. What types of reading material do you purchase for your child? (Circle all that apply).
   magazines comics children's books other_____
6. Do you listen to your child read? always sometimes rarely
7. Do you set aside a special time for your child to read? yes no
8. If so, how much time is set aside? _____ minutes
9. How frequently do you set aside time for your child to read?
   daily one to two times a week more than three times a week
10. Do you visit the bookstore with your child? yes no
11. What reading materials are available in your home? (Circle all that apply).
    books magazines newspapers children's books other_____
*12. Are you aware of any speech problems that your child has? yes no
*13. Does your child have any visual impairments? yes no
*14. Does your child wear glasses? yes no
*15. Does your child have any hearing problems? yes no
*16. If so, does he/she use a hearing aid? yes no
*17. Has your child had any tutoring in reading? yes no
    When?_____ By whom?_____
*18. Did you see positive results from the tutoring? yes no
19. Where would you place your child's reading abilities?
    above grade level at grade level below grade level
20. How many minutes per week do you read?
    less than 30 minutes 30 to 60 minutes more than 60 minutes
21. How often do you have the opportunity to read with your child in a week?
    once a week three times a week more than three times a week

THANK YOU FOR TAKING TIME TO COMPLETE THIS SURVEY.

*Questions adapted from Informal Tests for Diagnosing Specific Reading Problems. Stephen A. Pavlak, Ph.D. (1985).

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Appendix E

Parent Survey Rough Tallies School C

1. 2 2 2 3 3 1 1 3 1 4 once 1 1 1 1
3 times 2
none 1 1 1 1
None 1 1 1 3

2. less than 30 1 1 2 1 2 1 3 3 1 3 1 2 1 1 1 1
30-60 1 1 1 1
more than 60 1 1 2
None 1 1 3

3. once a week 1 1 1 1
one-two 2 1 1 2 1 1 1 1 1
once everytime 1 2 1 1 2 2 1 1 3 1
None 1

4. frequently 1 1 2 1 2 2 1 1 1 1
Sometimes 2 2 1 1 2 3 2 1 2 1 1 1
rarely - 2 1 1 1
none - 1

5. magazine 3 3 2 3 2 2 3 2 3 1 3 1 1 1 1 1 1
comics 2 1 1 1 1
Childrens book - 2 3 1 1 2 1 1 1 1
novels - 1 2 1 1 1 1 1

6. Always 2 1 1
sometimes 2 1 2 2 2 1 2 1 1 1 1 1 1
rarely - 1 2 1 1 1 1 2 1 1 1
none - 2 1

7. yes 2 1 1 2 1 2 1 1 1 1 *1 both
no 3 3 1 2 2 3 1 2 1 2 1 1 1 1

8. 1-30 - 1 2 2 2 1 1
31-60 - 1 1
31*

9. daily 1 1 1 1 2 1 1 1 3 1 1
1-2 times a week - 1 2 1 1 2 1 1 1 3 1
+3 - 1 1 1 1
nothing - 2 1 1 1 1 1 on the way /

10. yes 1 1 1 3 3 3 2 2 3 2 2 3 1 1
no 2 1 1 1 1

11. books - 1 3 3 3 3 3 3 3 1 3 3 3 1 1 1 1
mag 1 1 3 3 3 3 3 3 1 3 3 3 3 1
news 1 3 1 3 1 3 2 2 2 3 3
Childrens book - 3 1 3 3 1 2 1 2 1 3 3 3 2
Bible 1 1
Novels - 1 1
dict encyclo - 1

12. yes - 1 1 1 8
no - 1 1 1 3 3 3 2 3 1 1 3 3 3 2 1 1 1 1

13. yes - 2 1 1 2 1 1 1 1 1
no 1 1 3 2 2 3 2 1 1 2 3 2

14. yes - 1 1 1 1 1 1 2 1 1
no - 2 1 2 1 3 2 2 2 2 3 3

15. yes - 0
no - 30 1 1 1 1 1 1 1 1

16. 30 - no 1 1 1 1 1 1 1 1

17. yes - 1 1 1 3 1 nothing 3
no - 1 3 1 2 3 3 2 3 3 3

18. spec 20 yes 1 1 3 1

19. above 2 1 1 1 2 1 1 2 1 1 1
at 1 3 1 2 1 1 1 2 1 2 1 1
below 1 1 other 2

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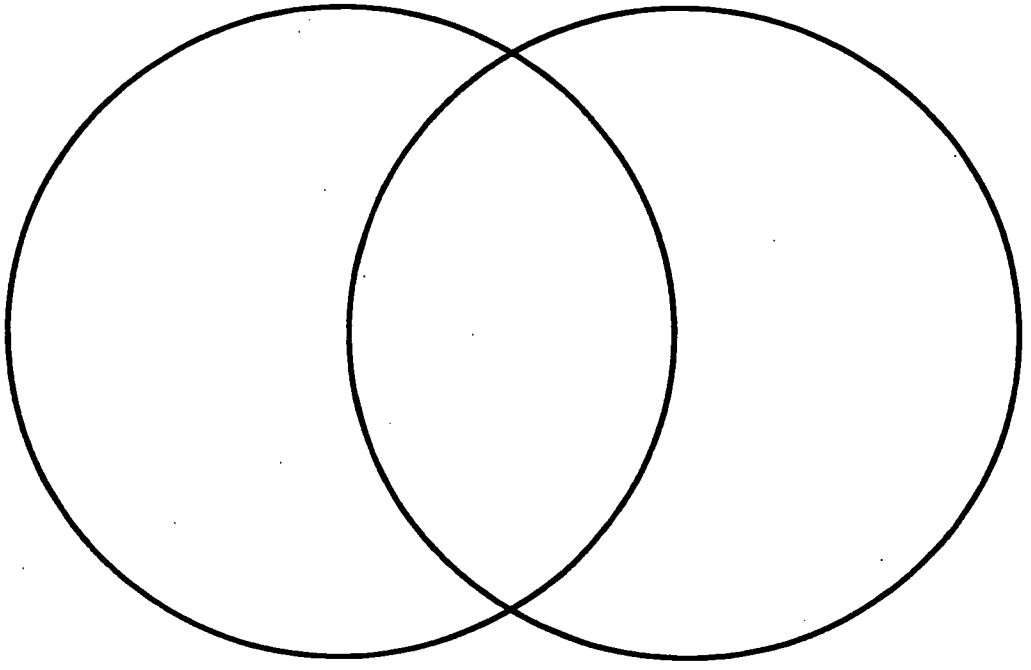
Appendix F

NAME _____ CLASS _____

VENN DIAGRAM



Bellanca, J. (1990). The cooperative think tank: graphic organizers to teach thinking in the cooperative classroom. Illinois: IRI/SkyLight

Appendix G

Story Pyramid

This activity can help students reflect on and organize their responses to literature. Students think of words that describe characters, setting, and events from a selection that has been read. Although it can be adapted to most groups, younger students and beginning readers may need extra help or additional modeling from the teacher to complete the story pyramid. The story pyramid and directions follow.

1 _____

2 _____ _____

3 _____ _____ _____

4 _____ _____ _____ _____

5 _____ _____ _____ _____ _____

Directions

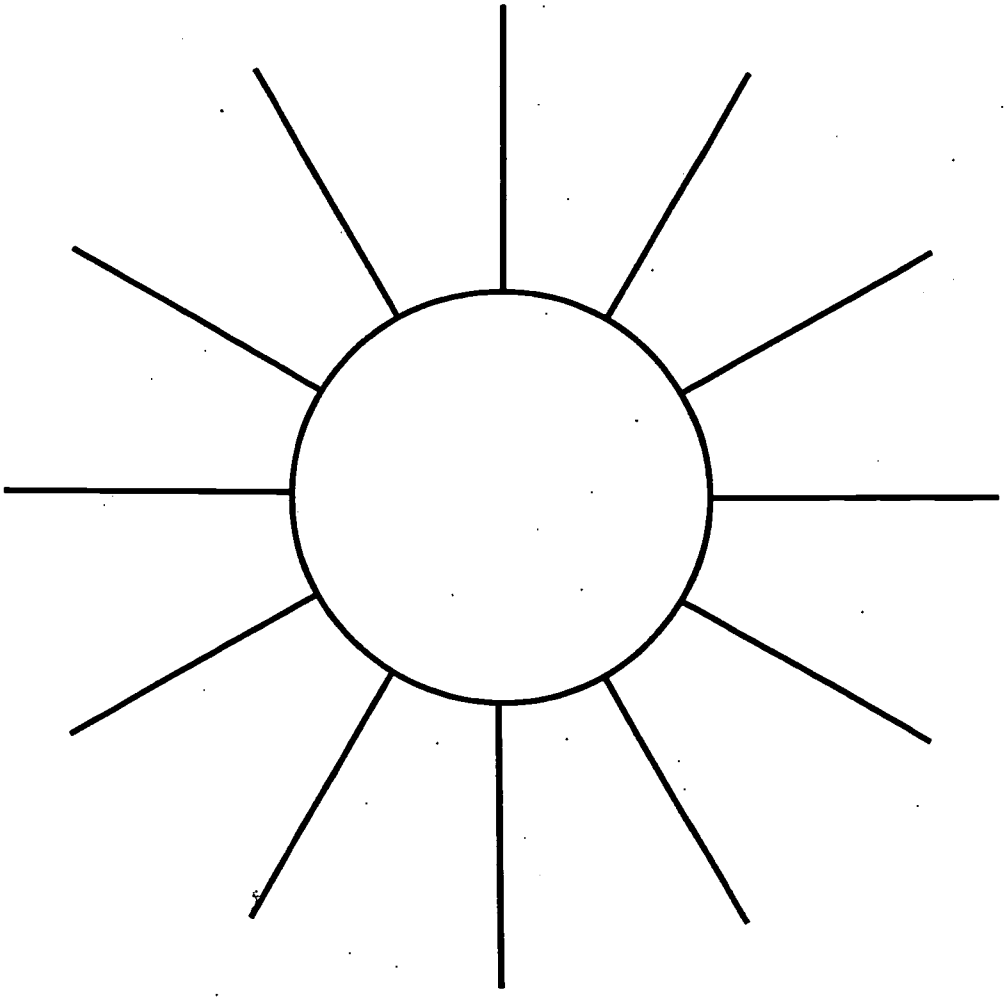
1. Insert 1 word that names a character.
2. Insert 2 words that describe the setting.
3. Insert 3 words that describe a character.
4. Insert 4 words in a sentence that describe one event.
5. Insert 5 words in a sentence that describe another event.

You can also adapt the story pyramid by adding more lines such as the resolution or conclusion.

Appendix H

NAME _____ CLASS _____

THE WEB



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