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ABSTRACT

A program was developed for improving the reading of first-grade students in a progressive suburban community in northern Illinois. The problem was originally noted by an increase in the need for support services and low standardized test scores. Analysis of probable cause data revealed that students lacked knowledge of the relationship between reading and writing processes. In addition, a review of the district's general curriculum and textbooks revealed that academic concepts were taught in isolation. Solution strategies suggested by knowledgeable others, combined with an analysis of the problem setting, resulted in the selection of three major categories of intervention: development of activities for students to integrate the reading and writing processes, communication of student-originated ideas in reading and writing, and demonstration of higher-order thinking through reading and writing. All strategic solutions occurred through curricular modifications and changes in teaching practices. All symptoms of the original problem were reduced as projected: students' integration of reading and writing improved, students' ability to communicate original ideas increased, and students demonstrated higher-order thinking skills through reading and writing. (Contains 34 references and 4 tables of data. A total of nine appendixes presenting data, student writing samples, checklists, and lesson plans are attached.) (Author/RS)

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INTEGRATION OF READING AND WRITING STRATEGIES
TO IMPROVE READING

by

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the degree of Master's of Arts in Education

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Abstract

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DATE: April, 1994

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TITLE: Integration of Reading and Writing Strategies to Improve Reading

ABSTRACT: This report describes a program for improving the reading of first grade students in a progressive suburban community in Northern Illinois. The problem was originally noted by an increase in the need for support services and low standardized test scores.

Analysis of probable cause data revealed that students lacked knowledge of the relationship between reading and writing processes. In addition, a review of the district's general curriculum and textbooks revealed academic concepts were taught in isolation.

Solution strategies suggested by knowledgeable others, combined with an analysis of the problem setting, resulted in the selection of three major categories of intervention: development of activities for students to integrate the reading and writing processes, communication of student originated ideas in reading and writing, and demonstration of higher order thinking through reading and writing. All strategic solutions occurred through curricular modifications and changes in teaching practices.

All symptoms of the original problem were reduced as projected: students' integration of reading and writing improved, students' ability to communicate original ideas in written form increased, and students demonstrated higher order thinking skills through writing about what they read.

Chapter I

PROBLEM STATEMENT AND
COMMUNITY BACKGROUNDProblem Statement

First grade students' abilities in reading and written language were inadequately developed to meet the curriculum requirements in the first grade classroom as evidenced by 20 percent of the students' involvement in supplemental reading programs and their standardized test scores.

Description of Immediate Problem Setting

There were 486 students who attended this elementary school in a midwest suburban community. The student population consisted of 95 percent Caucasian, two percent Black, one percent Mexican-American, one percent Asian, and two-tenths of one percent Native American children. Data concerning family socio-economic status indicated 22 percent were in the low income bracket with 18 percent of the children on the free or reduced lunch program. The student mobility rate for students entering or leaving the building during the school year was 21 percent. A large percent of the families living within the school attendance area lived in rental property.

Absenteeism and tardiness occurred in ten percent of the school population. An average absence rate of 11.3 percent was reported for first grade (School Report Card, 1992).

The academic team consisted of one principal, one and one-half kindergarten teachers, three first grade teachers, and three second grade teachers. Grades three through six required two classes for each grade level. The staff also included three early childhood teachers and four cross-categorical special education teachers. Support staff in the building included two half time Chapter I teachers, two half time Reading Recovery teachers, one special education resource teacher, one and one-half speech and language clinicians, one half time nurse, one part-time social worker, one part-time psychologist, and seven paraprofessionals. Additional support staff consisted of one part-time gym teacher, one half time art teacher, one half time vocal music teacher, one part-time instrumental music teacher, and one half time learning center teacher. The years of teaching experience of the academic staff ranged from three years to 24 years. The office staff consisted of one secretary and four part time resource aides who assisted teachers in preparing materials.

The school was located in a residential area. Students in grades kindergarten, one, four, five, and six were in self-contained classes. Two second grade classes and the two third grade classes were team taught in two large open classrooms. Because of the large number of special education students in attendance at the school, full inclusion into regular education programs for special needs students was being practiced in kindergarten and fifth grades. Time devoted to the teaching of core subjects for a five day week in first grade was as follows: reading and language arts, 15 hours; math, three hours and 45 minutes. The district used the Holt Reading Series and McMillan Math Series from kindergarten through sixth grade. Students were grouped according to reading ability. One hundred percent of the first grade teachers used a whole language

approach to enhance students' reading and writing skills. The first grade classrooms also used materials published by Modern Curriculum Press to teach phonics.

Surrounding Community

The school district served a progressive suburban community of 33,000 residents. The district was located adjacent to a metropolitan area. Two cities made up the district's 20 square mile area.

The median household income was \$31,147 and \$33,791 for the two cities. Seven and eight-tenths per cent of the community's residents were retired. The unemployment rate was four and five-tenths per cent. Females made up 13 per cent of the heads of households. The average age was between 30 and 44. The work force consisted of 41.2 per cent blue collar, 40.2 per cent gray collar, and 18.5 per cent white collar workers.

The community was experiencing gradual residential and commercial growth. This was primarily due to the development of open land throughout the northern part of the school district. As the community was growing, the school population was also gradually increasing. The district's small minority population, one percent, was assimilated through the district's curriculum which had been carefully developed to provide students with an understanding of ethnic groups, their cultures, and the important contributions of all groups of Americans.

The district's flat topography and concentrated population allowed the district to provide education in neighborhood schools. Minimal bus transportation of students was provided. Students who lived more than one and one-half miles from school were

eligible for transportation on district owned buses.

The community was vocationally oriented. Fifteen percent of graduated seniors attended a local junior college. Eight percent of the graduates went on to a four year university.

The student population of the district was 5,676. The ages of the students ranged from three to twenty-one. Special Education services were available to mentally impaired, hearing impaired, visually impaired, physically disabled, speech and language impaired, and learning disabled children. Due to the district's growing population, the school board recommended a redistricting of attendance boundaries and the opening of previously closed buildings.

The central office administration consisted of a superintendent, an assistant superintendent, a business manager, a director of human resources and labor relations, and a director of special education. An elected school board met twice monthly. Its responsibilities were to deal with situations pertaining to budget, curriculum, staffing, facilities, and discipline.

State and National Context of Problem

Nationally, longitudinal studies (Pinnell, 1989) showed that children who made poor beginnings in reading and writing tended to stay behind year after year, not changing their rank in the school group. In spite of a considerable investment of money, time, and commitment to compensatory education, many children remained at risk of failure, especially in reading, an area where large numbers of low-achieving children received extra help year after year.

Although many questions and issues surrounded efforts to help at-risk children, most educators, as well as the general public, were acutely aware that the number of people at risk was increasing. According to Smith (1993), executive director of the Rockford Area Literacy Council, fifty percent of adults nationwide were illiterate. The state of Illinois fell within the 34th percentile in state literacy rating (Secretary of State Literacy Office, 1992). Functionally illiterate adults were unable to fill out an application, read a medicine bottle or newspaper, locate a telephone number in a directory, use a bus schedule, or do quality comparison shopping. When confronted with printed material such people could not function effectively (Rockford Register Star, 1993). There was general agreement that efforts to help children become literate were of national concern.

Teachers may have contributed to poor reading performance by providing inadequate instructions. It had been found that the type of instruction delivered to poor readers differed from the instruction given to good readers. Allington (1983) suggested that increased reading instructional time produced higher achievement levels. Observations within the regular classroom setting indicated poor readers were more off-task and less engaged in reading than good readers.

Studies showed that poor readers spent less time reading silently than good readers (Allington, 1983). The instructional activities provided to poor readers tended to rely on decoding strategies rather than actively engaging the student in the text. Poor readers over-attended to visual information and sounded out every word (Lyons, 1989). This approach to reading made it more difficult for poor readers to enjoy reading and they found the reading process tedious and boring.

Observations of classroom instruction found higher level comprehension questions directed to students with better reading skills. Prior theories suggested students learned to read through a sequential process. New evidence suggested more advanced reading skills, which relied on higher order thinking, should be part of the instructional program for poor readers (Means and Knapp, 1991).

The problem of limited reading progress was evidenced by an increased number of students and adults with reading deficiencies and an increase in the number of programs which were developed to meet the needs of struggling students. The type of instructional practices used to assist readers was also in question. According to the Illinois Reading Recovery Project (1991), a depressingly large percentage of the children who did not learn to read by the end of the first grade went on to fail in later grades. They suffered from poor self-esteem and were candidates for retention and special education. They were likely to become apathetic students, troublemakers, or dropouts. Most existing remedies for failing readers were expensive and, on the whole, not very effective.

Chapter 2

PROBLEM EVIDENCE AND PROBABLE CAUSE

Problem Background

As pointed out in Chapter 1, primary age students' reading abilities were inadequately developed to meet the district curriculum requirements. Academic concerns were evidenced by the implementation of a variety of supplemental reading programs. The district implemented the Rising Stars program for preschool children at risk of academic failure. The school age programs included Chapter 1 services for kindergarten and first grade, Reading Recovery services at the first grade level, and certified and non-certified tutorial services at the elementary level.

The goal of the Rising Stars program was to assist developmentally disadvantaged students. The program included both children and their parents in a wide variety of activities, field trips, and technology to enhance learning. The staff included a full-time early childhood teacher, a one-half time social worker, and a classroom paraprofessional. Identified children throughout the district were provided transportation to one elementary school. The program was fully implemented during the second semester of the 1992-1993 school year.

Chapter 1 reading services were provided to students in grades two through eight until a pilot program of services for first grade students was implemented during the 1989-90 school year. Chapter 1 services were implemented district wide to first grade during the 1990-91 school year. During the second semester of the 1992-93 school

year, services were expanded to include kindergarten. In order for the district to include kindergarten and first grade students in the Chapter I program, additional teachers were not needed because services to upper grades were reduced. The focus of the program was changed to intervention in the early primary grades.

During the 1992-93 school year, Reading Recovery was implemented as a pilot program in one elementary building to reduce the number of students exhibiting difficulties with reading and writing. The benefits of Reading Recovery were not only the improvement of reading skills in students who showed early signs of difficulty but also the improvement in students' writing skills (DeFord, 1991). Funded by a state grant during the 1993-94 school year, the Reading Recovery program employed eight half time reading teachers all of whom had extensive inservice training before implementing the program. A Reading Recovery coordinator assisted in the implementation of the program.

Tutorial programs were provided on two levels. On one level, certified teachers worked collaboratively with the classroom teacher to serve students who displayed delays in reading. Each group of five or fewer students met for 30 minutes daily with the reading tutor. On the second level tutors were provided to help within the regular classroom setting. The tutors were part of a group of students enrolled in a child development class at the local high school.

Problem Evidence

The school district increased its efforts and funding to meet the needs of reading delayed students in the primary grades. This effort was evidenced by an increased number of support services to primary students who had reading delays. These needs

were addressed through referrals based on teacher evaluations, test scores, and reading levels of students (Appendix A).

Table 1
Percent of First Grade Students Scoring Within a Three Month Range
on the Iowa Tests of Basic Skills Reading Test
March 1993

Reading Range	% of Students
K.5-K.7	0%
K.8-1.0	10%
1.1-1.3	20%
1.4-1.6	25%
1.7-1.9	5%
2.0-2.2	10%
2.3-2.5	5%
2.6-2.8	10%
2.9-3.1	0%
3.2-3.4	5%
3.5-3.7	0%
3.8-4.0	5%
4.1-4.3	0%
4.4-4.6	5%
4.7-4.9	0%

N=20

The Iowa Tests of Basic Skills were administered to all elementary students in grades one through six in March of 1993. Table 1 presents data on the percentage of one class of first grade students' reading within a three month range on the ITBS. Fifty-five percent of the students were reading below the expectancy level of first grade seventh month. Twenty-five percent of those students were in need of remedial help while 30% of students scoring at a first grade third month level and lower were in critical need of remediation as determined by the standardized test results.

Table 2

Holt Reading Levels and the Percent of First Grade
Students Reading at Each Level
March 1993

Holt Reading Level	Grade Equivalent	% of Students
6	1.4	0%
7	1.5-1.6	30%
8	1.7-1.9	70%
9	2.0-2.4	0%

N=20

The percentage of first grade students' reading in each level of the Holt grade level books in March of 1993 is presented in Table 2. Thirty percent of the students were reading at a level below the expectancy of first grade seventh month. Seventy percent were reading in the appropriate grade level book. The classroom teacher explained that a combination of basal reading materials and a whole language/language experience approach was used with the students. The use of a variety of teaching techniques and the teacher's desire to divide the children into two groups rather than three for reading instruction may be the explanation for no students reading below level seven.

Probable Causes of Problem

Data to indicate probable causes were gathered from two sources: interviews and an analysis of the curriculum. The intent of the interview was to determine students' attitudes and perceptions about reading and writing. Hillerich (1990) reported a significant relationship between reading success and early knowledge of the purpose of reading. In addition, a review of the district's general curriculum and textbooks was

completed to evaluate the integration of reading and writing instruction at the primary level (Appendix B).

An analysis of the results of the reading interview designed by Hillerich (1990) indicated a majority of students shared similar perceptions and attitudes toward reading and writing (Appendix C). The students enjoyed reading and writing stories; knew a good reader who was, in most cases, a family member; had books at home; and could name a favorite book. The students had someone reading to them at home, but only one-half of the students interviewed had a library card. The students could not internalize when they were doing an acceptable job of reading. They needed external reinforcement such as praise from an adult. When the students came to an unfamiliar word, they most often asked someone to tell them the word rather than use a reading strategy or contextual clues.

Probable cause data from the literature indicated a need to integrate the reading and writing processes throughout the curriculum and to further create purposeful reading and writing activities to demonstrate higher order thinking skills. If reading and writing were taught together the integration of those skills would show improved skills in both areas. Combining the best reading and writing strategies would obtain the goal of fostering critical understanding and thinking activities in the curriculum. Purposeful reading and writing activities included those that used students' prior knowledge, personal involvement through making choices, and assessing and using their feelings about topics (Shanahan 1990).

A review of the school district's MacMillan/McGraw/Hill (1991) Mathematics In Action textbook revealed strategies to integrate reading and writing. Manipulatives in

the back of the pupils' edition stimulated cooperative learning opportunities. Critical thinking skills involving problem solving and reasoning skills were available in various forms within each lesson. Throughout the text there were multiple curriculum connections which linked math with science, art, music, social science, and language arts. The text also provided opportunities for students to apply math skills to situations through written language.

A review of the Holt, Rinehart and Winston (1986) reading textbook revealed a three step implementation plan for each story: preparing to read, reading and comprehension, and developing and applying skills. Questions for teacher guided reading consisted of inferential thinking and literal understanding. Critical thinking skills were revealed in making judgments through context and picture clues. Critical thinking areas were lacking in the form of attributing, comparing/contrasting, classifying, sequencing, prioritizing, inferring, or drawing analogies. Prewriting skills failed to incorporate brainstorming, webbing, or Venn diagrams. There were limited follow-up writing activities. Higher order thinking skills and student originated writing skills were neglected in this reading series.

A review of the Holt, Rinehart and Winston Social Studies textbook (1986) and Charles E. Merrill Science (1985) textbook revealed supplementary materials consisting of multiple choice and fill in the blank worksheets and tests. There were limited opportunities for children to demonstrate higher order thinking skills in either content area. In both texts, enrichment and extension activities involved listing, labeling, drawing, and charting. Cognitive tasks were concentrated in the information gathering stage. The tasks directed students to name, locate, and describe. Higher order

questioning techniques were left to the discretion and creativity of the teacher.

Curriculum analysis indicated a newer textbook, such as the mathematics book, addressed a more integrated curriculum with higher order thinking skills. The reading series and science and social studies textbooks did not address these issues thoroughly.

Chapter 3

THE SOLUTION STRATEGY

Review of the Literature

Analysis of probable cause data suggested poor reading performance at the first grade level was related to students' attitudes and perceptions of the reading process, the curriculum's lack of integration of the reading and writing processes, and the lack of development of higher order thinking skills. The literature search for solution strategies found that reading deficits were most easily remediated in the early grades. The literature also indicated that pull-out programs were ineffective in bringing students up to adequate levels of performance. Educators showed an increased interest in developing reading and writing strategies which could be implemented within the regular classroom setting.

Research regarding the benefits of full-day versus half-day kindergarten programs in teaching basic skills and reducing grade retentions and special education referrals was inconclusive. It was observed that full-day kindergarten programs were designed to prevent or remediate academic delays in disadvantaged children and to meet the needs of working women (Peskin, 1987; Salzer, 1982). The full-day programs implemented a more structured academic curriculum with an increased use of support staff. Some research showed that short term gains were achieved in full-day kindergarten programs for educationally disadvantaged children when the extended time in the classroom continued to emphasize academic skills (Puleo, 1988; Karweit, 1992).

There was conflicting evidence regarding the number of special education referrals of children completing a full-day kindergarten program. Three studies of the number of special education referrals were cited. Evans and Marken (1983) found a higher number of referrals, the Madison Metropolitan Report (1985) found no difference in the number of referrals, and Nieman and Gastright (1981) found fewer referrals. Nieman and Gastright found fewer referrals of children who had attended a full year of preschool prior to kindergarten (Puleo, 1988).

Less conflicting evidence existed regarding retention of children who completed a full-day versus a half-day kindergarten program. According to Nieman and Gastright (1981), for those students who completed full-day kindergarten it was determined that the number of students retained at the end of third grade was ten percent lower than for those who completed half-day programs (Puleo, 1988). A ten percent reduction in the number of retentions could greatly affect a school district's financial situation.

Researchers not only looked at the issue of whether a full-day kindergarten experience promoted success in the later grades, but also how children came to kindergarten at different levels of readiness for reading. Attention focused on the use of phonics or whole language to teach reading at the kindergarten level. Stahl and Miller (cited in Karweit, 1992) reviewed studies that compared whole language/language experience that integrated the use of written language with the use of basals for the teaching of reading. Seventeen studies favored the use of a whole language/language experience approach, 14 studies found no difference in the approach used to teach reading, and 2 studies favored the use of basals. This suggested that the use of a reading approach that integrated reading and writing could be found effective in improving

reading skills.

Special classrooms such as the nongraded and transitional classrooms were developed to address low academic gains in some students. The nongraded primary concept allowed pupils to develop at their own pace. Grouping students encompassed a two to four year age span that allowed movement between levels. Students stayed with the same teacher and the older children helped teach the younger students. The nongraded classroom was designed because individual grade levels were too restrictive to meet the individual students' needs (Connell, 1988). Goodlad and Anderson (cited in Cohen, 1990) argued textbooks that were keyed to grade levels nurtured conformity and tempted teachers to cover material whether or not it was appropriate to the wide range of individual differences among pupils. The nongraded classroom was one strategy designed to implement developmentally appropriate primary grade curriculum. Nongraded schools were viewed as unsuccessful (Cohen, 1990).

Transitional classrooms were designed to address the increased number of children failing to master the content of kindergarten and being identified as unready for first grade (May and Kundert, 1993). Transitional classrooms were designed to prepare students for the next grade by reteaching skills which had not been mastered rather than reteaching the entire previous curriculum. Advocates for and against transition classrooms agreed transitional classrooms misdirected energy that could be better used to change the fundamental curriculum within the regular classroom (Bredenkamp, 1990).

Evidence showed that programs which pulled students out of the regular education setting and provided additional reading services had little effect on students

long-term remediation (Slavin, Karweit, Wasik, 1993). The Chapter I remediation program serviced students in low income areas. The services provided students of similar reading delays with small group reading instruction. Research indicated that Chapter I services had little effect past the third grade level (Slavin, et al., 1993). Analysis of the failings of the Chapter I program suggested that remedial instruction set low expectations for the students and depended on a slow, plodding instructional pace for basic sequential skill instructions. These shortcomings were evidenced by an annual gain in reading of one twenty-first of a standard deviation per year (LeTendre, 1991). This small reading gain made it difficult to change the long term reading level of the students.

Chapter I recognized its shortcomings and revised its teaching strategies and program goals. Chapter I was a pull-out program where students were removed from the regular classroom setting and given special reading instruction. The program's goal was to coordinate its efforts with the regular classroom teacher and use instructional strategies and materials which complemented the regular program. The coordination of teaching strategies was done to aid in the transfer of skills from the pull-out program to the classroom.

Chapter I looked beyond basic skills and set higher expectations for students. The Hawkins-Stafford School Improvement Amendment of 1988 made dramatic changes in Chapter I services (LeTendre, 1991). The amendment provided opportunities for flexibility and creativity and stressed higher-order thinking skills. The amendment called for an accountability of student performance by the school and the parents.

The special education resource program was another pull-out program which demonstrated little overall success in remediating students with mild reading delays. A large percentage of students with learning disabilities remained in special education programming through their school career (Halgran and Clarizio, 1993). Studies indicated students within the resource room were actively engaged in learning most of the time, but when the students went back to the regular classroom they became passive learners (Reid, Baker, Lasell, and Eastin, 1993).

Special education resource programs separated the students from the mainstream and substituted a more repetitive, task-oriented curriculum. This curriculum served to intensify the disparity between real life and textbook-based reality (Reid, et al., 1993). Special education failed to give meaningful alternatives to students who, without support, could not succeed within the regular classroom.

Studies showed an interrelationship between academic skills and social skills. Social interaction determined thought processes: interaction, communication, and the transmission of knowledge (Hoover and Collier, 1992). Within group settings, special education students were able to make connections easier between reading and the real world, through social interaction. Resource programs began to see socialization as an important element to learning (Hoover and Collier, 1992).

Special education resource classrooms revised student instruction to use a more integrated curriculum. This was accomplished through instruction that revolved around reading comprehension and writing. Integration of the curriculum served as a means of connecting students to the social and physical world through school experiences. It created opportunities for students to develop decision-making skills and to become

aware of how they viewed the world. When learning was relevant and personal, it led to internal motivation to learn (Reid, et al., 1993; Keefe and Keefe, 1993).

The focus of pull-out programs radically changed. Evidence was presented that learning was based on an holistic approach, risk taking, and prior knowledge, rather than the teaching of discrete skills. Chapter I and special education resource focused efforts on developing curriculum based on a student's past experiences, both personal and academic. Reading and writing curriculums appeared to be an integral part of this change.

Reading Recovery was an early intervention program for first grade students experiencing difficulties learning to read. The program was directed at the bottom 20 percent of first graders. It was a one time intervention that came at the earliest stage of the child's schooling. The goal of Reading Recovery was to accelerate students and to help them develop into independent readers so they could read with the average students in their class without further remediation.

Reading Recovery required one-to-one individualized instruction but only for an average of 12 to 16 weeks. It was a supplemental pull-out intervention that did not replace the regular classroom reading and writing instruction but worked to enhance the reading program. Each Reading Recovery lesson included reading many books and composing and writing a message or brief story. During these holistic reading and writing tasks, teachers used special techniques to help children become effective readers and writers. The intent of Reading Recovery was to make a student aware that reading and writing are interconnected (Clay, 1985).

The effective intervention of Reading Recovery required an initial investment of materials and extensive teacher training. It was a long term cost benefit intervention. The savings due to the implementation of Reading Recovery were achieved through reductions in retentions, Chapter I services, and special education placements. Reading Recovery offered a short term intensive program that was educationally sound and a cost effective alternative to more commonly used approaches.

In 1984, Reading Recovery was introduced to the United States by Dr. Marie Clay. The Ohio State University, the Ohio Department of Education, and the Columbus Public Schools joined forces to implement Reading Recovery in Ohio. Results from this pilot study were very positive (Huck and Pinnell, 1985). A longitudinal study conducted in the Columbus Public Schools found that a high proportion of children serviced by Reading Recovery demonstrated sustained progress through the third grade without further intervention (Pinnell, DeFord, and Lyons, 1988). The MacArthur Foundation awarded the Reading Recovery faculty at Ohio State University, a grant to compare four other reading interventions, each of which contained some elements similar to those in Reading Recovery. This study, known as the Early Literacy Research Project, found that Reading Recovery, with its emphasis on integrating reading and writing, was significantly more effective than the other approaches (Pinnell, et al., 1988).

Project Outcomes

The terminal objective of this problem intervention was related to the discrepancy data presented in Chapter 2. This data indicated that 55% of the first graders in one classroom scored below the expectancy level of first grade seventh month

Thirty percent were in critical need of remediation.

Probable cause data from the literature indicated a need to integrate the reading and writing processes throughout the curriculum and to further create purposeful reading and writing activities to demonstrate higher order thinking skills. Therefore:

As a result of curricular modifications and changes in teaching practices during the 1993-1994 school year, primary students will develop a meaningful purpose for reading and writing as measured by student interviews; and the number of students reading below grade level will decrease as measured by teacher evaluation of students' performance.

In order to accomplish the terminal objective, the following intermediate objectives defined the major strategic procedures proposed for problem resolution.

- 1) As a result of curricular modifications and changes in teaching practices, the teacher will develop activities for students to integrate the reading and writing processes.
- 2) As a result of curricular modifications and changes in teaching practices, the students will apply reading and writing to communicate their own ideas.
- 3) As a result of curricular modifications and changes in teaching practices, the students will use reading and writing to demonstrate higher order thinking skills.

Proposal Solution Components

The major elements used to reduce the reading discrepancy between students' achievement and grade level expectancy involved incorporating writing within the reading program. The first element involved providing students with activities which integrated the reading with the writing process. The second element involved writing activities which provided students the opportunity to communicate their own ideas from what they read. The final element involved activities which required students to use

higher order thinking to demonstrate how they could incorporate new information they read into existing schema. These elements related to the terminal objective in that they attempted to change the perceptions of reading from isolated word units to meaningful information. Discrepancy data indicated a large percentage of students were below the reading expectations established for each grade. Probable cause data indicated students' inaccurate perceptions of the reading and writing process and inappropriate curriculum design were factors that contributed to the delays in reading.

Chapter 4

ACTION PLAN FOR IMPLEMENTING THE SOLUTION STRATEGY

Description of Problem Resolution Activities

The action plan was designed to address three major solution components: integration of the reading and writing processes throughout the curriculum, increased communication of student ideas in written form about what they have read, and improved student usage of higher order thinking skills through reading and writing activities.

The curriculum development phase of the plan began in the fall of 1993 with the biweekly meeting of four primary grade teachers in an elementary school. Using assessment data collected at the end of the 1992-93 school year, the group designed and shared lesson plans which integrated reading and writing strategies to improve reading.

The improvements sought as a result of the implementation plan included: Increased frequency of student writing and the reading of student work, improved student attitudes about reading and writing, and establishing gains in reading levels. The implementation plan presented below is in outline form, allowing for the overlapping of strategies.

1. Develop activities for students to integrate the reading and writing processes throughout the curriculum.
 - A. Who: A committee of four teachers will design curricular modifications and changes in teaching practices.

- B. What: The committee will create lessons integrating reading and writing processes throughout the curriculum.
- C. When: This will occur during the first semester of the 1993 school year.
- D. Where: The committee will meet at an elementary building after school for one hour bi-weekly.
- E. How: They will use resource materials collected over the past year as well as individual staff expertise.
- F. Why: The lessons will be used as a resource for the committee members during the first semester, thus encouraging the integration of the reading and writing curriculum.
2. Increase students' ability to communicate ideas through reading and writing.
- A. Who/What: The teacher will implement lessons to encourage students to express ideas in written form and read the finished product to an audience.
- B. When: These selected lessons will be used throughout the instructional day during the first semester of the 1993 school year.
- C. Where: The setting will be a primary elementary school classroom.
- D. How: Decisions will be reached at committee meetings.
- E. Why: Increasing students' use of communication skills.
3. Improve students' usage of higher order thinking skills through reading and writing activities.
- A. Who/What: The teacher will implement lessons to encourage student demonstration of higher order thinking skills of sequencing, comparing/contrasting, predicting, and metacognition.

- B. **When/Where:** The selected lessons will be given throughout the instructional day in a primary elementary classroom during the first semester of the 1993-94 school year.
- C. **How:** Through the use of higher order thinking resource materials.
- D. **Why:** Research indicates the development of higher order thinking skills is related to improvement in reading and writing. (Costa, 1991)

Methods of Assessment

A variety of data collection methods were used in order to assess the effects of the intervention. A comparison of 1993 and 1994 first grade ITBS reading grade scores and Holt reading levels was completed to determine if the intervention strategies reduced the percentage of students in need of remediation. The students were interviewed again to determine if they discovered the purpose of reading which is related to early reading success. The development of writing skills was assessed using journal entries. The most critical component in the assessment of the intervention plan was the observations of the classroom teachers.

Chapter 5

EVALUATION OF RESULTS AND PROCESS

Implementation History

The terminal objective of the intervention addressed the inadequate development of reading and writing skills as required in the first grade curriculum. Test scores and observations indicated 20 percent of the students were in critical need of remediation.

Therefore, the terminal objective stated:

As a result of curricular modifications and changes in teaching practices during the 1993-1994 school year, primary students will develop meaningful purpose for reading and writing as measured by student interviews; and the number of students reading below grade level will decrease as measured by teacher evaluation of students' performance.

The development of a curricular component to address the delays in reading in a first grade elementary classroom began with a review of the discrepancy data. This indicated a large percentage of students were below the reading expectations established for first grade. Probable cause data indicated students' inaccurate perceptions of the reading and writing process and inappropriate curriculum design were factors that contributed to the delays in reading. This activity took place at the beginning of the 1992-93 school year.

The program had three components that attempted to change the perceptions of reading from isolated word units to meaningful information (Appendix D). The first element involved providing students with activities that integrated the reading with the writing process. At the beginning of the year, first grade writing activities were teacher directed because the students lacked writing experience. Student writing

activities involved consonant sounds, short vowel sounds, basic sight words, and the patterning of consonant-vowel-consonant vocabulary words (Appendix E). As the students gained experience with writing the activities became less directed by the teacher.

The second element involved writing activities that provided students the opportunity to communicate their own ideas. The students were involved in describing events from personal experiences or from what they had read (Appendix F). Writing activities were expanded to include science and social studies topics (Appendix G). Science and social studies materials utilized by the district did not include writing activities for first grade (Appendix B).

The final element involved activities that required students to use higher order thinking skills. The students were engaged in writing activities that required sequencing, comparing and contrasting, and predicting (Appendix H). The intervention plan was designed to have the first grade students use higher order thinking skills in written form early in the school year. During the early implementation of the plan it became apparent that first grade students needed to develop basic writing skills before using higher order thinking skills in written form. Writing activities using metacognition were not attempted with the students. That skill needed development orally before advancing metacognition to written form.

The analysis of the strategies employed to improve reading through writing revealed overlapping elements (Appendix D). Few of the writing activities met only one goal of the plan. The greatest overlap was between integrating reading with writing and writing to communicate an idea.

Presentation and Analysis of Project Results

In order to assess the effects of the planned intervention, a comparison of scores from March 1993 and March 1994 for the reading comprehension test for first grade on the Iowa Tests of Basic Skills was made. The reading expectation level of a first grader when this test was given was first grade seventh month. The results of this comparison are presented and summarized in table 3.

Table 3

A Comparison of the Percentage of First Grade Students Scoring Within a Three Month Range on the Iowa Tests of Basic Skills Reading Comprehension Test
March 1993 and March 1994

Reading Range	% of Students 1993	% of Students 1994
K.2-K.4	0%	0%
K.5-K.7	0%	10%
K.8-1.0	10%	5%
1.1-1.3	20%	25%
1.4-1.6	25%	20%
1.7-1.9	5%	10%
2.0-2.2	10%	15%
2.3-2.5	5%	0%
2.6-2.8	10%	10%
2.9-3.1	0%	5%
3.2-3.4	5%	0%
3.5-3.7	0%	0%
3.8-4.0	5%	0%
4.1-4.3	0%	0%
4.4-4.6	5%	0%
4.7-4.9	0%	0%
	N=20	N=20

The table indicates that 55 percent of the students were reading below the expected level of first grade seventh month in 1993. In 1994, that number increased to 60 percent of the students reading below the district expectation level and in need of

remediation of reading difficulties. The percentage of students scoring below a first grade third month level and in critical need of remediation increased from 30 percent in 1993 to 40 percent in 1994. Standardized test results indicated a greater need for remedial reading help for the present first grade class. Teacher evaluation of the individual reading needs of the students did not indicate as high a percentage of students in critical need of remedial help in the area of reading.

Table 4

Holt Reading Levels and the Percent of First
Grade Students Reading at Each Level
March 1993 and March 1994

Holt Reading Level	Grade Equivalent	% of Students March 1993	% of Students March 1994
6	1.4	0%	0%
7	1.5-1.6	30%	0%
8	1.7-1.9	70%	100%
9	2.0-2.4	0%	0%
		N=20	N=20

Table 4 represents a comparison of percentages of first grade students' Holt reading levels in March 1993 and March 1994. First grade students are expected to complete level seven by the end of the third nine weeks and level eight by the end of the year to meet district standards. One hundred percent of the students were reading in level eight in March 1994. The students will all meet district expectations for the completion of the first grade reading basal series.

The classroom teacher's reading program consisted of two heterogeneous reading groups. The teacher combined the use of the basal reading series with other supplementary materials to present a wide range of reading experiences to the students.

the students were encouraged to bring favorite books from home to read to the class. The students were also encouraged to read original material written during an activity in class.

The students were interviewed in the fall of 1993 to establish perceptions and attitudes toward reading and writing. A follow-up interview was completed in March of 1994 (Appendix I). The results of the follow-up interview indicated two major changes in student perceptions and attitudes. Students now relied on using reading strategies or contextual clues to decode new vocabulary. The students also perceived themselves as good writers rather than naming published authors as they did in the fall.

Reflections and Conclusions

The integration of writing and reading reduced the number of students reading below grade level as measured by teacher evaluation of student performance. All students will complete level eight of the reading series which is the last basal book at the first grade level. This was accomplished through curricular modifications and changes in teaching practices. Standardized test scores did not support the benefit of the intervention plan even though teacher observation did support it.

Two constraining factors existed during the implementation of the plan. One factor was the movement of children out of the classroom for special services. Six of the twenty children left the room, individually and in groups of two, for thirty minute blocks of time at various times throughout the morning. The fragmentation of the class made long writing activities difficult to attempt. Much of the writing was completed in the morning during the language arts block. There were two teachers available to work with students at that time.

The other constraining factor was the ability level of the class as a whole. During consultation with the classroom teacher it was stated that a comparison between the first grade class of 1992-93 and the class of 1993-94 would be difficult to make. It was stated that the beginning skill level of the current class was below the skill level of the previous class. It was the opinion of the classroom teacher that the students benefitted from the writing experiences that were completed.

A critical component of the intervention plan was a change in the classroom teacher's perception about teaching writing to first grade students. The district's first grade curriculum prescribed the teaching of reading without writing. It was discovered through experimentation with writing activities that first grade students had a desire to learn writing skills from the start of the school year. The reading, social studies, and science curriculums were modified to integrate writing into learning activities.

Another important factor was the teacher's willingness to make changes in present teaching practices and set expectation levels for student writing. The teacher had to deviate from established practices and develop appropriate lessons to supplement the existing curriculum. The development and implementation of the supplemental writing lessons required creativity and additional planning on the part of the teacher (Appendix D).

Chapter 6
DECISIONS ON THE FUTURE

The Solution Strategy

The data indicated that the integration of reading and writing should be continued. However, modifications of the original design are suggested. The expectations for first grade writers were too high. The development of writing skills should occur in a sequential order and within realistic expectation levels.

Expectations in the area of writing, using higher order thinking skills, were unrealistic. The content of the original implementation plan involved sequencing, comparing and contrasting, predicting, and metacognition. Prior to the development of higher order thinking skills, the development of basic reading readiness skills was necessary. The introduction of consonant sounds, short vowel sounds, basic sight words, and the patterning of consonant-vowel-consonant vocabulary words were necessary before writing could begin.

The first stage of writing involved descriptive writing. This related to reading readiness skills. This writing stage was concrete and did not involve the higher order thinking skills listed in the implementation plan. The next stage involved sequencing and comparing and contrasting information in written form. Toward the completion of the intervention plan students were capable of writing predictions. They were able to address metacognition verbally but not in written form.

Throughout the implementation of the program, it was discovered that components of the classroom curriculum should not be taught in isolation but should be viewed as a comprehensive plan to improve the reading and writing skills of the student. Remediation of students should occur within a coherent, comprehensive program designed to address individual needs. The major focus of this intervention plan was to integrate reading and writing in a meaningful way for the student.

Additional Application

In order to facilitate comprehensive planning, efforts should be made to work collaboratively with colleagues to develop a reading and writing intervention plan. The integration of reading and writing should be a part of each grade level curriculum. Individual students not performing at the district's expectation level should be identified and programs established to address their needs throughout the curriculum. As part of the comprehensive planning, staff development pertaining to the integration of reading and writing should occur. The intervention program provided the student with an opportunity to interact with reading in a meaningful way.

Dissemination of Data and Recommendations

The results of this study indicated that classroom environment was a critical component of the program's success. A self-contained classroom represented the most conducive way to implement the integration of reading and writing. The incorporation of direct instruction, required supplemental reading at home, and heterogeneous reading groups that provided students with appropriate modeling, were factors for success of the intervention.

Programs to assist students with reading delays rely on support programs that integrate the classroom program with special services. Special service teachers should actively integrate their curriculum with that of the classroom. The materials and concepts must be consistent between programs in order to enable students to make the proper connections.

Results of the study should be shared with staff members. The staff should be encouraged to make changes in teaching practices to incorporate the prescribed intervention of integrating reading and writing. Staff development should include a progressive list of activities that will allow for a sequential acquisition of writing skills from structured writing to creative writing.

The critical variable in the success of this implementation plan is the competence and commitment of the staff. The teaching staff must be willing to move away from comfortable practices of teaching subjects in isolation without requiring a great amount of writing from the students to integrating learning across the curriculum. Grading student performance through writing is a time consuming job. Teachers need to develop criteria to judge student writing to make the task as objective as possible.

A staff with experience in teaching reading, writing, and higher order thinking skills is a benefit to the intervention plan. Present staff members not displaying strengths in these areas should be provided extensive staff development seminars on these related topics. Teachers should be given the opportunity to assess and evaluate the intervention program throughout the school year with their colleagues.

Expensive materials were not necessary for the success of this program. Some lessons were taught without being part of the daily plan. If a situation arose that allowed

the students to write they were given that opportunity. They now think of themselves as good readers and writers. This program not only taught a skill needed for success in school it taught the children to feel good about themselves as readers and writers.

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APPENDICES

Appendix A

First Grade Students' Iowa Tests of Basic Skills Reading
Grade Equivalent and Holt Reading Level
March 1993

Student	ITBS Reading Grade Equiv.	Holt Reading Level
1	1.1	7
2	1.9	8
3	4.4	8
4	1.5	8
5	1.2	7
6	1.4	7
7	1.5	8
8	K.8	7
9	2.7	8
10	1.1	7
11	2.8	8
12	3.2	8
13	3.9	8
14	1.3	8
15	2.4	8
16	1.6	8
17	1.6	8
18	K.8	7
19	2.0	8
20	2.0	8

**Appendix B
Curriculum Ranking**

		Holt, Rinehart, and Winston Reading	McMillan/ McGraw- Hill Math	Holt, Rinehart, and Winston Social Studies	Merrill Science
Students' Original Writing	5				
	3		●		
	1	●		●	●
Integration of Reading and Writing Processes	5				
	3		●		
	1	●		●	●
Higher Order Thinking Skills in Written Form	5		●		
	3				
	1	●		●	●

Code 5 = Very Evident
 3 = On Occasion
 1 = Non Existent

Appendix C
Reading Interview

1. Do you like to read? Why?	Yes 24	No 5	Occasionally 2
2. Do you know a good reader? Who? How do you know they are a good reader?		Yes 29 Family Member 20	No 2 Other 9
3. How do you know when you do a good job reading?	Tells Me 15	Don't Know 5	Other 11
4. What do you do when you come to a word you don't know?		Ask 20	Other 11
5. Do you like to write stories? Why?	Yes 28	No 2	Occasionally 1
6. Do you know someone who writes good stories? Who?		Yes 26	No 5
7. What makes a good story?	Topic Responses 17		Other 14
8. Do you have books at home? Which ones are your favorite?		Yes 29	No 2
9. Do you have a library card?		Yes 15	No 16
10. Does someone read to you at home? Who?		Yes 24	No 7

Appendix D
Supplemental Lesson Plans

	integrating reading and writing	writing to communicate ideas	developing higher order thinking skills
Stories stressing initial consonant sounds	x		
Stories stressing short vowel sounds	x		
Recipes for applesauce and friendship stew		x	x sequencing
Thank you notes to parents at Thanksgiving		x	
The development of a pumpkin vine	x		x sequencing
Writings about Pilgrims and Indians	x	x	
Letters to Santa about what the students would like to find in their stockings		x	
Writings during unit on ocean animals	x	x	x comp/contrast
Activities enjoyed with a grandparent	x	x	
Snow sculpture field trip		x	
How do you get a leprechaun's pot of gold	x	x	
<u>Caps for Sale</u>	x		x predicting

Appendix E
Writing for Reading Readiness

Mm A Mouse in the Muffins

Mom made some muffins.

A mouse got in the muffins.

Mom threw the muffins away.



Aa The Alligator and the Cat

All the alligator was swimming
through the water.

A black cat jumped on his back.

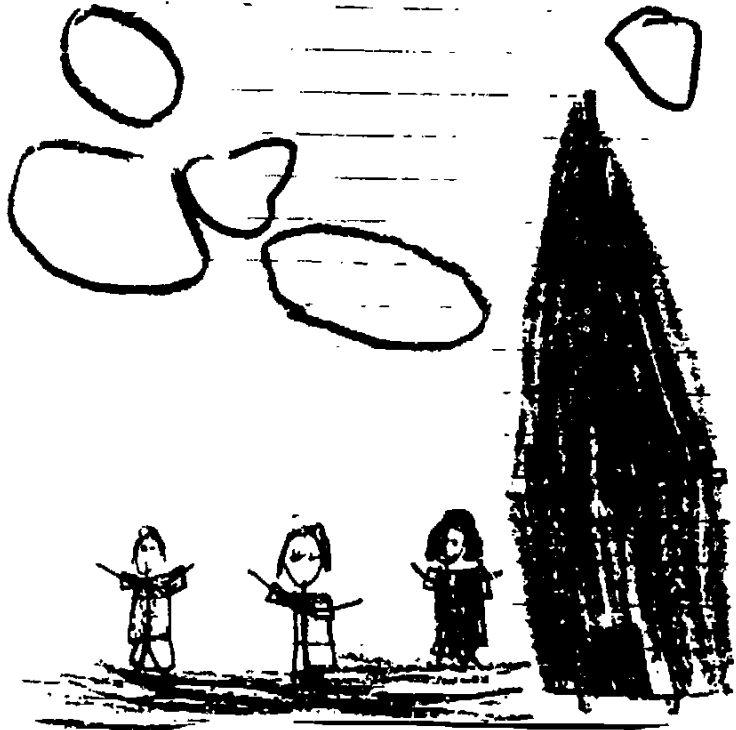
Alli swam under water.



Appendix F

Writing from Personal Experience

I like to
spend over night
with my Grandma
and Grandpa.



November 17.
The Indians, Little Rubber
servant, and Little Runo
had to get on their horse
and hunt buffalo and
carry tomahawk
and went back to the
longhouse AND they
PLAYED their tom-tom
AND they took a MIDNIGHT
SWIM too the sky blue
AND HAD A GOOD TIME

I am sure. If
we ever learn
about oceans. I
know that
it has a lot
see animals. eve

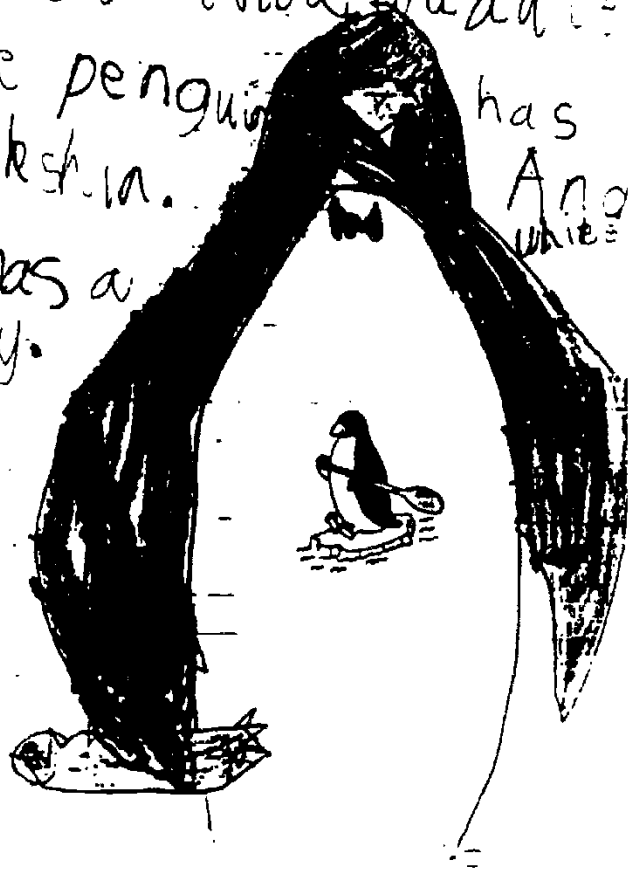


The jellyfish's tentacles
and the jellyfish's stings

This animal can give you bumps
and it swells



It also can get infected

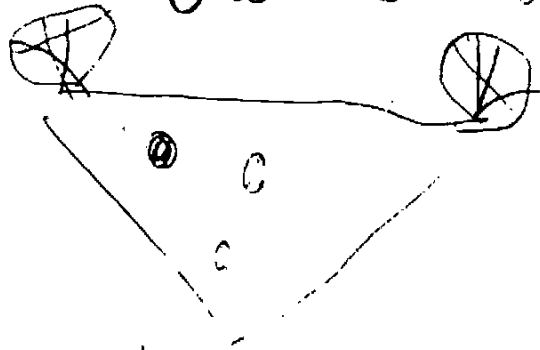
February 23
The penguin
dada little waddle
The penguin has
perfect skin. And
he has a white
tummy.



Appendix H

Writing Using Higher Order Thinking Skills
Sequencing

December 17
Reindeer Treat
Pot  on
Add a  nose
Add two eyes
Add two antlers



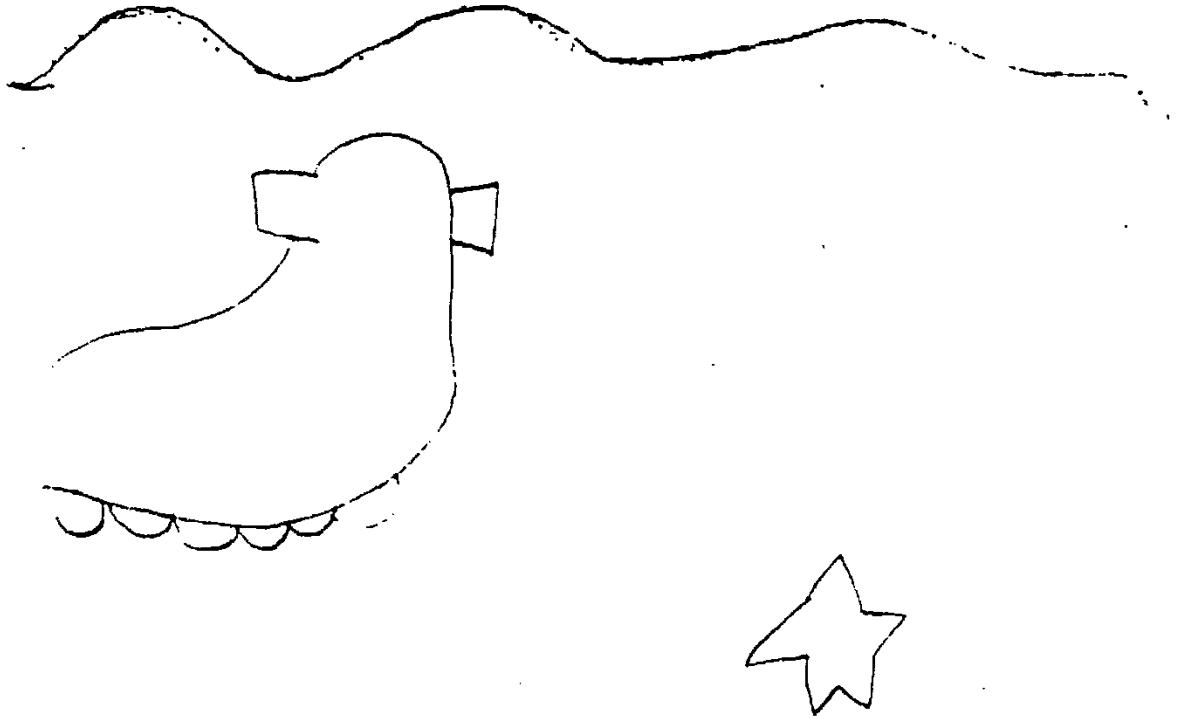
Eat!

Comparing



The octopus and the starfish are
alike because they both have a
mouth on the bottom
and many legs

Contrasting



The octopus and the starfish
are different because the starfish
has five legs and
the octopus has eight
legs

Predicting

The man saw a monkey
he had the caps.

Appendix I
Reading Interview

1. Do you like to read? Why?	Yes 23	No 1	Occasionally 2
2. Do you know a good reader? Who? How do you know they are a good reader?		Yes 26	No 0
	Family Member 8		Other 18
3. How do you know when you do a good job reading?	Tells Me	Don't Know	Other
4. What do you do when you come to a word you don't know?		Ask 6	Other 20
5. Do you like to write stories? Why?	Yes 22	No 1	Occasionally 3
6. Do you know someone who writes good stories? Who?		Yes 23	No 3
7. What makes a good story?	Topic Responses 21		Other 5
8. Do you have books at home? Which ones are your favorite?		Yes 26	No 0
9. Do you have a library card?		Yes 22	No 4
10. Does someone read to you at home? Who?		Yes 22	No 4