Rowan University

Rowan Digital Works

5-3-1999

An evaluation of the effects of Project Read on the reading achievement of primary age disabled learners

Susan L. Pennock
Rowan University

Follow this and additional works at: https://rdw.rowan.edu/etd

Part of the Disability and Equity in Education Commons

An Evaluation of the Effects of Project Read
on the Reading Achievement
of Primary Age Disabled Learners.

by,
Susan L. Pennock

A Thesis

Submitted in partial fulfillment of the
requirements of the Master of Arts Degree in the
Graduate Division of Rowan University
Spring, 1999

Approved by Professor_____

Professor

Date Approved____ _May 3, 1999_

ABSTRACT

Susan L. Pennock
The Effectiveness of Project Read
on Students with Learning Disabilities
Spring 1999
Dr. Stanley Urban
Learning Disabilities Graduate Program

The purpose of this study was to investigate the effectiveness of a multisensory approach to reading being used in the West Windsor-Plainsboro School District's Special Services Department. Project Read, developed by Language Circle Enterprises, is being used to teach phonology, comprehension, and written expression to students with learning disabilities. A pull-out approach is used with the second and third grades in one elementary school. Students are mainstreamed for homeroom, lunch, science and social studies. They are pulled out and sent to a Learning Center in the school for reading, language arts, and math. Reading scores were used from the previous year Gates-MacGinitie Reading Test and compared to this years scores.

Students were measured with two different normed tests that could not be compared to statistical significance. The results were presented in tabular form to examine whether or not there was growth. The results indicated that each participant of the study showed growth in reading skills. None of the students regressed, several exhibited minimal growth, and others made moderate gains.

MINI-ABSTRACT

Susan L. Pennock
The Effectiveness of Project Read
on Students with Learning Disabilities
Spring 1999
Dr. Stanley Urban
Learning Disabilities Graduate Program

This study was conducted to determine if the multisensory, direct concept teaching method used in Project Read resulted in meaningful gains in reading achievement for children with learning disabilities. When the results were tallied and presented in tabular form, all participants exhibited gains in their reading scores.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF TABLES

1

Chapter 1

THE PROBLEM

Background

Students with learning disabilities are unable to achieve at a level commensurate with their potential in one or more of the following areas: reading, math or language arts. Teachers are continually seeking new programs that will reach their students and enable them to succeed. In order to address the needs of these Learning Disabled readers, West Windsor-Plainsboro Special Services has adopted the Project Read Program.

Project Read is a multi-modality program developed by Language Circle Enterprises in 1987. The program combines training in phonology, comprehension, and written expression. The authors Victoria Greene and Dr. Mary Enfield developed the strands that compose Project Read to cover all learning styles and include the use of visual, auditory, kinesthetic, and tactile (VAKT) modalities. Project Read is built on the foundation of direct concept teaching as well a sequential, hierarchical order which enhances learning disabled children's ability to acquire skills.

Research Question

To accomplish the general purposes of this study, the data obtained is used to answer the following research question:

Does the multisensory, direct concept teaching method used in Project Read result in meaningful gains in reading achievement with children with Learning Disabilities?

Need For The Study

Adequate reading comprehension ability is crucial for success in all vocations and is intimately involved in content subject matter areas in school. Severe underachievement in reading is a major weakness for most children with Learning Disabilities, thus finding an effective program to help them succeed is crucial. Many potentially useful remedial programs are available, but it is important to use "what works." Choosing one program that will benefit the greatest number of students is difficult. Since children do not all learn in the same modality. One child may be a visual learner, while another could benefit being taught auditorally. Using a program that puts all four modalities to work in a direct concept teaching model should theoretically be beneficial for all disabled readers.

Value Of The Study

Determining a reading program that will work for the greater number of students is often difficult, time consuming and expensive. Each student presents an idiosyncratic pattern of strengths and weaknesses that must be accommodated in any instructional program. Along with a broad range of learning styles and reading levels, time constraints make reading instruction very difficult. Utilizing a reading program that fits each child's own learning style is crucial.

Limitations

This study is restricted to a limited number of second and third grade learning disabled students in one public school system. The participants were not randomly selected, but rather represented a convenience group available to the researcher. All students had been placed in special education programs.

Placement in a program will not be the only factor influencing the effectiveness of Project Read. Other social and environmental factors, such as family participation, teacher, peers, time constraints, as well as academic ability, may influence the effectiveness of the program.

The participants may have difficulty understanding and/or utilizing the manipulatives and fine motor movements needed which makes the program work. In addition, the children may not feel comfortable using the program due to the hand gestures. These factors could prevent a reliable and valid measure of the effectiveness of Project Read on students with learning disabilities.

Definitions: cited from the Houghton Mifflin Company's <u>Riverside Webster's II New College Dictionary</u>, 1995; The New Jersey Administrative Code Title 6A chapter 14 Special Education, Effective July 6, 1998; and The Project Read Manual.

Learning Disabilities: Specific learning disability corresponds to "perceptually impaired" and means a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. It is characterized by a severe discrepancy between the student's current achievement and intellectual ability in one or more of the following areas: Basic reading skills, Reading comprehension, Oral expression, Listening Comprehension, Mathematical computation, Mathematical reasoning, and Written expression (The Code, 38).

Learning Center: A resource room type program. Children with language learning disabilities are mainstreamed for homeroom, specials, lunch, science and social studies. They are pulled out and go to the learning center for math, reading and language arts.

Linguistics: The study of the nature and structure of language.

Phonology: The study of speech sounds, including phonetics and phonemics.

Phonetic: Relating to a system for representing speech sounds in which each symbol denotes only one sound.

5

Phonetics: The branch of linguistics concerned with the study of speech sounds and their production, description, combination and representation by written symbol.

Phonemics: The study and description of the phonemes of a language.

Phoneme: One of the set of the smallest units of speech, as the m of mat and the b of bat in English, that distinguished one utterance or word from another in a given language.

Comprehension: The act or fact of comprehending.

Comprehending: To grasp mentally.

Written Expression: An act of expressing, conveying, or depicting in writing.

Multisensory (VAKT): Visual, auditory, kinesthetic, tactile. Pertaining to or making use of several bodily senses.

Visual: Serving, caused by, or relating to the sense of sight.

Auditory: Of or relating to the sense, organs, or experience of hearing.

Kinesthetic: Of or relating to the sense of bodily movement.

Tactile: Perceptible to the touch.

Direct Concept Teaching: A regulated, sequential order of instruction in which each skill is broken down to its simplest component and then sequenced into a three-step process: 1) Progression from simple to complex; 2) Frequency of use; 3) Skills dependent on prior concepts. In this way, a chain of learning is built based on logic links. The student actually sees the parts that make the whole.

In direct concept teaching, the student is directly taught the concept and then the label is attached. For example, in teaching the concept of a syllable, the teacher would first state the concept:

A word can be divided into as many parts as it has vowel sounds.

Finish contains two vowel sounds and therefore it can be divided into two parts. fin/ish

Page contains one vowel sound and therefore can not be divided.

The term syllable is applied only **after** the concept is understood. The term is looked on as nothing more than a label (Project Read Manual, 11).

Chapter II

Review of Literature

Project Read Background

Project Read was developed by Dr. MaryLee Enfield and Victoria Greene for students who need systematic learning experiences with direct teaching of concepts and skills through multisensory techniques. The program is made up of three curriculum strands: decoding, reading comprehension and written expression. The strands are integrated at all grade levels, but specific strands are emphasized at certain grade levels.

Strand One revolves around Phonology instruction which begins in grade one and continues through grade six. During this section, a systematic, multi-sensory approach to phonics instruction is used. It is based on a modification of the Gillingham-Stillman method. The major emphasis in this strand is to develop effective use of phonics for word decoding in reading and spelling.

Comprehension is the main focus of Strand Two. Students learn to decode words in a systematic, multisensory approach and need the same approach in learning reading comprehension skills. The major goal in this strand is to help students learn skills which allow them to function independently with all aspects of

reading. Instructional emphasis shifts to reading comprehension and vocabulary extension when the learner has mastered the mechanics of language. Instruction begins toward the end of grade one and is given major focus in grades four through six.

Strand three focuses on sentence structure. Here, students are taught how words function within a sentence. First, students examine a basic "barebone sentence." The subject and predicate word is then expanded through simple, compound, and complex sentence patterns. Symbols are used to diagram a sentence so that the relationship between the "barebone" and expanded portion of the sentence is understood. Students are given opportunities to practice these concepts though a variety of creative writing experiences. Some students use the skills to formulate sentences, most apply the knowledge into the editing process. This strand begins in the middle of grade one and continues through grade six.

Project Read is based on a modification of Orton-Gillingham methods which are widely used for the instruction of children identified for special education as learning disabled. The Project Read instructional strategies include:

1. A systematic presentation of skills (i.e., skills to be developed are presented from the simplest to the most complex and from the most frequently to the least frequently used).
2. Multi-sensory (visual, auditory, kinesthetic, tactile) learning experiences.
3. Activity-based learning.

4. Characteristics of direct instruction in Project Read include the teacher controlling and directing the learning process by:

    a. structuring the lesson in small sequenced units.

    b. pacing instruction to allow for frequent practice.

    c. reinforcing correct responses.

    d. correcting errors.

    e. closely monitoring student progress.

    f. utilizing small group instruction, and

    g. modeling generalization of mastered skills.

5. The use of the Madeline Hunter Lesson Plan Design which calls for:

    a. anticipatory set (focus, practice, establish readiness)

    b. statement of lesson objectives

    c. delivery information

    d. modeling practice and learning behavior

    e. checking for understanding

    f. guiding practice, and

    g. providing for independent practice.

(See Appendix E for a typical day in a Project Read classroom).

Project Read was originally developed for learning disabled students. It has proven to be so effective that it is now used for children who are below their expected

grade level for reading, but do not qualify for special education. The effectiveness can be attributable to the fact that the program is driven by direct concept teaching and has a strong phonetic foundation. To support the philosophy and effectiveness of Project Read, further examination will follow of what research has to say about reading, decoding and phonology, instructional approaches and materials, and direct concept teaching.

Overview of Reading Research

Finding a program that is useful in improving instruction is an ongoing quest for many teachers. The vast amount of literature on reading approaches can be overwhelming and include four main sources of information including personal experience, expert opinion, research literature, and action research. Decisions based on personal experiences are usually arrived at because teachers, and others, are comfortable with the familiar (i.e., "It worked for me before"). Also, when instant instructional decisions must be made daily in the classroom, personal experience is the most readily accessible base for action. Alternatives may be too time consuming to pursue (Jay and Farstrup, 4). A downfall to this way of decision making is that what works for one group may not work with another, also, memories of past experiences may be faulty.

Decisions based on expert opinion are made up of personal experiences, shared experiences, judgments, and research of others. An example of a Reading

expert in the school building would be a Reading Specialist. One caution here is that the specialist needs to keep a broad unbiased opinion in offering recommendations and also needs to be readily available.

Decisions based on research literature can result in beneficial decisions since there is a large range and variety of information available which can be angled to a specific question. Yet, it can also be detrimental simply because of the volume of information available and researching all of it can be complicated, time-consuming work.

Action Research projects follow if a literature search fails to answer the specific question. The main features of an action research project are relative informality and its focus on day-to-day problems. It employs the scientific method, but many of the rigorous criteria of regular research can be relaxed because a specific situation is being examined. It is used when local practitioners are looking for a specific answer to a local question rather than results that can be generalized to other locales (Jay and Farstrup, 5).

While reviewing reading research to find effective programs, many overlapping and confusing terms which are used to describe how children learn to read; these terms include the code/decoding/word attack/word recognition/phonics/ and sight words are some of the more common terms. The code is a system of mappings, or correspondences, between letters and sounds. When an individual has learned those mappings, that person is said to have "broken the code." Now the individual can apply his or her knowledge of the mappings to figure out plausible pronunciation of

printed words (Beck and Juel, 103). Word recognition, word identification, word attack, and sight word recognition are all terms applied to decoding with different levels of conscious attention. Sight word vocabulary or sight word recognition is the goal of all reading instruction...that children come to respond to most words at a glance without conscious attention. Sight word method or whole word or look-say describe a process where words are introduced as whole unit without analysis of parts. With repeated exposure in meaningful content, students are expected to learn the words without conscious attention to the sub word units. This is very difficult for some children, especially for students with learning disabilities.

Decoding and Phonology

Early attainment of decoding skills is important because this early skill accurately predicts later skill in reading comprehension. In 1986, K.E. Stanovich concluded that there is strong and persuasive evidence that children who get off to a slow start rarely become strong readers (Beck and Juel, 105). Recent research supports the claims that reading disabilities are specifically linked to lack of phonological awareness. Phonemic awareness requires the cognitive ability to categorize similar sounds and to consciously manipulate phonemes in spoken language (Beck and Juel, 117). This provides a rationale of why programs such as Project Read, which have a strong decoding foundation, are important for children who struggle with reading. Early learning of the code leads to wider reading

habits both in and out of school. Wide reading provides opportunities to grow in vocabulary, concepts, and knowledge of how text is written. Children who do not learn to decode do not have this avenue for growth. Stanovich discovered a phenomenon, in which the "rich get richer" (i.e., the children who learn to decode continue to improve in reading) and the "poor get poorer" (i.e., children who do not learn to decode early become increasingly distanced from the "rich" in reading ability). This phenomenon has been termed the Matthew effect (Beck and Juel, 108).

Several researchers have studied the effects of the importance of early decoding skills. In 1988, Juel did a longitudinal study of 54 children grades first through fourth. There was a .88 probability that a child in the bottom quartile on the Iowa Reading Comprehension Subtest at the end of first grade will be a poor reader at the end of fourth grade. Of 24 children who remained poor readers through four grades, only two had average decoding skills. By the end of the fourth grade, the poor decoders still had not achieved the level of decoding that the average or good readers had reached by the beginning of second grade. The poor decoders also had read considerably less than the average or good readers, both in and out of school. They also had gained little vocabulary compared with the good decoders and expressed a real dislike of both reading and the failure associated with reading in school (Beck and Juel, 105).

Lesgold and Resnick in 1982 found that a child's speed of word recognition in first grade was an excellent predictor of that child's reading comprehension in second grade. In 1984, Lundberg found a .70 correlation between linguistic awareness of

words and phonemes in first grade and reading achievement in 6th grade. Of forty-six children with low reading achievement in 1st grade, 40 were still poor readers in 6th grade. In addition, Marie Clay discussed the results of a longitudinal study in 1979 of children learning to read in New Zealand. She stated that correlations from a follow-up study of 100 children two and three years after school entry lead her to state rather dogmatically that where a child stood in relation to his age-mates at the end of his first year in school was roughly where one would expect to find him at 7th or 8th grade (Beck and Juel, 106).

If early decoding is so crucial, how can we help children learn the code? The most important factor is arranging conditions so that children gain reading independence early. Children need prerequisite understandings about print. They need to know that print is important because it carries a message, that printed words are composed of letters, and that letters correspond to somewhat distinctive sounds heard in a spoken word. These prerequisites develop as a result of the child being read to (especially by an adult who has made occasional references to aspects of the print), having attended preschool and kindergarten programs, or having watched instructional television programs like Sesame Street (Beck and Juiel, 106).

Some children find it difficult to distinguish between the pictures and the words in the books. To them, the pictures are more exciting then the black marks at the bottom of the page. Also, children pick up an early cue system where they use initial letters as recall cues. It's very difficult and increasingly frustrating for them to distinguish "duck" for "deer" unless a better cue system is developed. If a child can't

distinguish sound segments they will encounter difficulty when trying to sound out words in reading and writing, which is the basis of phonemic awareness. To foster awareness, parent, grandparents, and educators should spend a lot of time on word play, nursery or Dr. Seuss rhymes and storybooks. Unfortunately, many children come to school without phonemic awareness and some fail to gain it from their school experiences.

Empirical research has shown the importance of fostering early phonemic awareness. In 1987, Maclean, Bryant, and Bradley completed a longitudinal study of children ages 3 years 4 months. They found a strong relationship between children's early knowledge of nursery rhymes and the later development of phonemic awareness. Phonemic awareness also predicted early reading ability. Lundberg, Frost, and Peterson in 1988 showed that preschool children can be trained to manipulate the phonological elements in words. The 8 month training involved a variety of games, nursery rhymes, and rhymed stories. It showed considerable gains in some phonemic awareness skills, such as phoneme segmentation and those skills were still evident through 2nd grade (Beck and Juel, 108). According to developmental models of reading acquisition, phonemic awareness enables the youngsters to discover and exploit the alphabetic principle, thereby becoming able to determine individual words that she or he has not seen before (Cornwall, 537).

Instructional Approaches and Materials

In 1985, *Becoming a Nation of Readers*, a report developed by the National Commission on Reading, stated that "...the trend of the (reading research) data favors explicit phonics (instruction)." Explicit instruction deals with children being directly told the sounds of individual letters. Implicit phonics is where children are expected to induce the sounds that correspond to letters from accumulated auditory and visual exposure to words containing those letters (Beck and Juel, 112). Many students fail to induce the sounds because they are unable to segment a word into distinctive sounds. It takes very sophisticated phonemic awareness to do so (Beck and Juel, 113). Jeanne Chall's classic book from the mid-1960's, Learning to Read: The Great Debate, supports the phonics focus. In her book, Chall proclaimed that programs that included phonics as one component were superior to those that did not (Samuels, Schermor, Reinking, 125).

Phonemic processing skills may be so crucial to the initial stages of reading acquisition that training may be necessary to prevent young children with reading disabilities from lagging behind in other skills necessary for learning to read (Hurford, 568). Furthermore, beginning reading instruction should focus on letter-sound relationships within printed words (DiVeta and Speece, 582). Reading disabled children experience difficulties in learning to use the phonetic code to unlock unknown words. An integrated approach to reading should be used with a strong emphasis on the development of both basal vocabulary and phonic decoding skills at

17

rates tailored to the individual child's ability in each area (Richardson and DiBenedetto, 351).

Two very crucial ways of helping students with phonics are finger spelling and touch boards. Research has demonstrated that stretching out each component sound until it merges with the next sound and then collapsing the sound together so the word can be heard more clearly is critical. Project Read uses this technique during their phonology strand and they call it Finger Spelling. Touch boards are also helpful in Project Read. Research also shows that activities such as placing "__an" on the chalk board and putting various consonants in front for the students to read is highly beneficial. They continue that the students should engage in activity with letters on their own desks. Project Read uses this approach with pocket charts and Spell Tab Folders. The teacher demonstrates the activity on the pocket chart and the students practice it a lot. Students then are handed a laminated folder filled with post-its that have the letters of the alphabet on them. They are then asked to build certain words many times using the tabs. Building words in this fashion externalizes the blending process. It makes the process readily accessible to children making it very concrete. Children physically handle the letter cards, attach sounds to them, and manipulate the cards to produce new words (Beck and Juel, 118). Lower and slower achieving students have greater need for repetition, but they will likely not get it from basal programs and they are not likely to get it from incidental sources when they lack the reading skills to benefit from the exposure(Hargis, Terhaar-Yonkers, Williams, and Reed, 34). A phonics based, direct instruction program, like Project Read, which offers

small group/individualized instruction, plenty of opportunities for repetition and practice, as well as immediate feedback and reinforcement, is crucial.

Direct Concept Teaching

Direct instruction stresses the importance of an academic focus, pupil engaged, time on-task, close teacher monitoring and corrective feedback to pupils (Roehler and Duffy, 478). In a debate with Kenneth S. Goodman, Jeannne Chall strongly backed direct instruction. She believes that direct instruction models view reading as needing to be taught, and taught systematically. As she pointed out in her book, Stages of Reading Development, "Direct instruction models tend to view reading in more developmental terms. Learners move from the reading of familiar texts where the critical task is to identify and decode words, to more advanced stages of reading more difficult and abstract texts, where the critical tasks are word meanings, comprehension, and critical reaction" (Chall, 8).

Direct instruction models favor the systematic teaching and learning of the relationship of sounds and symbols. This goes under many names-phonics, decoding, the alphabetic principle, phonological awareness, word analysis, word attack, phonetic analysis, sound-symbol relations, etc. Chall also stated that in practice, direct instruction models favor direct systematic instruction in phonics which so many of todays children need.

Students exposed to direct instruction models achieve more at the same age and grade. The advantage is particularly strong for students "at risk" - students from low-income families and those disposed to having reading and learning disabilities (Chall, 9).

There is much research to back up direct instructions effectiveness. The NAEP data (National Association of Educational Progress) shows that reading scores of 9 year olds increased during the 1970's then leveled off or decreased during the 1980's. A probable cause may be that in the 70's, schools put more emphasis on basic skills, which is more characteristic of direct instruction models. The 80's brought about Whole Language and Process Learning which is not beneficial for all children. Chall continues to state that synthesis of recent research on methods of teaching reading found that aspects of direct instruction such as structure, challenge, reinforcement, and systematic phonics led to better than expected reading achievement (Chall, 9).

The findings from the research in reading are clear in that direct concept instruction with a strong emphasis on phonics is crucial for children learning how to read. Early readers thrive in an environment that utilizes a systematic teaching and learning of the relationship of sounds and symbols. An early phonetic foundation leads to later success in many areas including comprehension, vocabulary, concepts, and overall knowledge growth. Students with Learning Disabilities especially need early intensive phonemic awareness instruction. They need direct instruction in a multisensory manor with ample time and patience for the practicing of these skills.

Chapter III

METHODOLOGY AND PROCEDURES

Introduction

This study will examine the effectiveness of Project Read with 11 students who manifest learning disabilities. The students are placed in the mainstream with occasional in-class support for specials, lunch, recess, science and social studies. For reading, language arts, and math, the students are in a Learning Center. The Learning Center is comparable to a resource center. The <u>Gates-MacGinitie Reading Test</u> will be administered to the participants. The results will be presented in tabular form and then discussed. In addition to the Reading scores, a survey of the perception of teachers using Project Read will be discussed.

Sample

The participants in this study are 11 students in the second and third grades from one elementary school. The sample was selected based on convenience and accessibility. It includes special education students identified as language learning disabled. Language learning disabled covers a wide array of disabilities which previously had their own classifications. Students in this study's population are

comparable to students who used to be termed perceptually and neurologically impaired. The students participate in in-class support as well as a resource-type setting called the Learning Center. The total sample was made up of 5 second graders and 6 third graders.

A brief educational history of the students in the sample will be discussed. This is the first year that two of the second graders have participated in special education. Previously they were in Reading Recovery and regular education. The other three second graders have been in the special education program for 2 years. Two of the third graders were previously educated through the resource center and basic skills math. The other 4 have been in special education for 3 years.

Measures

The <u>Gates MacGinitie Reading Test</u> was selected as the measure of reading achievement. It is the latest refinement in a long tradition of reading tests begun by Arthur I. Gates. The basic premise of the test is that it is useful for teachers and schools to know the general level of reading achievement of individual students, throughout their entire school careers. The objective information obtained from the tests, complemented by teachers' evaluations and others sources of information, is an important basis for selecting students for further individual diagnosis and special education, planning instructional emphases, locating students who are ready to work

with advanced materials, making decisions about grouping students, deciding which levels of instructional materials to use with new students, evaluating the effectiveness of instructional programs, counseling students, and reporting to parents and the community (The Gates-MacGinitie Reading Test Manuel, 67). The tests are designed for children in kindergarten through twelfth grade. Subtests range from letter-sound correspondences and literacy concepts to vocabulary and comprehension. A reading test is valid to the extent that it measures the knowledge and skills that schools want their students to learn from their learning instruction. During the development of the Third Edition of the Gates-MacGinitie Reading Tests, a number of steps were taken to assure that the tests would be valid for most school reading programs (The Gates-MacGinitie Reading Test Manuel, 72). Among other steps, researchers developed pools of items to choose from, vocabulary list research was completed, and passages were written to suit the knowledge and interest of the children.

Research Strategy

This study is designed to determine if the multisensory, direct concept teaching method used in Project Read will result in meaningful gains in reading achievement with children who have learning disabilities. In approaching this problem, it was decided to use the results from last year's Gates-MacGinitie Reading Test and compare them to this years.

Informed consent   (see Appendix B) was obtained from the parents of the students prior to their participation in the study. In March, the test will be administered to all of the participants individually. Before the administration of the test, the examiner will explain its purpose. The testing sessions should take 20 to 30 minutes. The tests will be scored and the results recorded.

Analysis

The research questions asked: 1). Does the multisensory, direct concept teaching method used in Project Read result in meaningful gains in reading achievement with children with learning disabilities?   Students were measured with two different Gates MacGinitie tests and could not be compared to statistical significance.   In order to analyze the gains in using Project Read, grade equivalent results will be compared from the June 1998 scores to the March 1999 scores.   This will ascertain whether there are any significant gains in using Project Read.   The results will be analyzed and discussed in the following chapter.

Chapter IV

ANALYSIS AND INTERPRETATION OF THE DATA

Introduction

Many reading programs are available to teach students with learning disabilities. Finding the most effective is time consuming and expensive. West Windsor-Plainsboro School District uses a multisensory program entitled Project Read. This program covers three strands: decoding, comprehension and written expression. This study asked: 1). if the multisensory, direct concept teaching method used in Project Read resulted in meaningful gains in reading achievement for students with learning disabilities? and 2). What was the perception expressed by teachers of the effectiveness of Project Read? The following analyses consider the significance of the program.

Results

The research question was analyzed in terms of the comparison of Gates-MacGinitie Reading scores from June of 1998 to the scores received in March of 1999. Table 1 illustrates the students scores from June 1998, while Table 2 illustrates the scores from March 1999. Tables 3 and 4 depict the amount of growth achieved by each student. An examination of the tables, establishes that all students made gains

in their reading scores. Third grader, Jon H., who was tested with the Kindergarten level test last year and received a grade equivalent score of 1.1, had a half year gain. He scored at the 1.6 grade level of the 2nd grade level test in March. Third grader, Mario D., was administered the K level last year and received a 1.4 grade equivalent. He showed an improvement in that on the 2nd grade level test in March, he scored at the 1.4 grade level. Third grader Jon P., showed a years growth. In June of 1998, he had a grade equivalent of 1.6 on the 2nd grade test. In March of 1999, he scored at a grade equivalent of 2.5 on the 3rd grade test. Third grader Jeff H., also showed a years gain in that on his second grade June test, he scored at a grade equivalent of 1.6 and in March's third grade test, he scored at a 2.5 grade level. Third grader, Bianca M. progressed from a 1.4 on the Kindergarten level to a 2.0 on the third grade level test. Second grader, Kathryn B. showed a year and a half gain. She scored at the Kindergarten level on the Kindergarten test last year and at the 1.6 level on the first grade test this year. Second grader Brian C., who received at 1.2 grade equivalent of the Kindergarten test in June, received a 2.3 on the first grade test in March. Second grader Christa S., received a Kindergarten level of the Kindergarten test in June and received a 1.6 grade equivalent of the first grade test in March. Third grader Maurice R., received a grade equivalent of kindergarten last year on the kindergarten test and a grade equivalent of 1.3 on the second grade test this year.

Table 1:   <u>June 1998 Scores for the Gates-MacGinitie Reading Test</u>

Raw score: number correct
S: stanine
NCE: normal curve equivalent
PR: percentile rank
GE: grade equivalent
ESS: extended scale score
CGL: current grade level
LTA: level test administered

*Some data in their cumulative folders from previous teachers was missing. Mainly
total scores were available.

Student	CGL	LTA	Raw	S	NCE	PR	GE	ESS
Jon H.	2	K	37	1	1	01	1.1	311
Mario D.	2	K	45	1	20	8	1.4	349
Jon P.	2	2	42	2	20	8	1.6	387
Jeff H.	2	2	37	2	15	05	1.6	376
Bianca M.	2	1	71	3	33	21	1.4	414
Kathryn B.	1	K	31	2	12	4	k	281
Brian C.	1	K	38	2	19	7	1.2	316
Christa S.	1	K	33	2	14	4	k	290
Maurice R.	2	K	*	*	*	1	k	*

Aly R.   (Aly & Rishard both came from different programs (Reading Recovery) which did not

Rishard W.   send any previous testing scores)

27

Table 2:   March 1999 scores from Gates-MacGinitie Reading Test

v: vocabulary   c: comprehension   t: total

Student	CGL	LTA	Raw	S	NCE	PR	GE	ESS
Jon H.	3	2	v 12	1	01	01	1.3	355
			c 21	2	15	05	1.6	362
			t 33	1	15	05	1.6	366
Mario	3	2	14	1	01	01	1.4	370
			14	1	01	01	1.4	318
			28	1	01	01	1.4	350
Jon P.	3	3	22	4	36	26	2.6	443
			20	3	33	20	2.3	422
			42	3	33	21	2.5	435
Jeff	3	3	28	5	46	42	3.2	461
			16	2	24	10	1.9	395
			44	4	35	24	2.5	439
Bianca	3	3	13	2	18	07	1.9	411
			17	3	26	12	2.0	402
			30	2	21	08	2.0	409
Kathryn	2	1	27	3	27	14	1.6	390
			34	4	35	23	1.7	386
			61	3	28	15	1.6	385
Brian	2	1	39	5	48	46	2.3	428
			37	4	39	30	1.9	398
			76	5	46	42	2.3	423
Christa	2	1	29	3	30	18	1.6	396
			28	3	27	14	1.6	363
			57	3	24	11	1.6	376
Maurice	3	2	14	1	01	01	1.4	370
			19	2	14	04	1.6	354
			23	1	01	01	1.3	329
Aly	2	2	16	2	23	10	1.5	382
			24	2	22	9	1.6	373
			40	3	27	14	1.6	383
Rishard	2	2	31	5	52	54	2.5	436
			33	5	46	43	2.3	420
			64	5	48	47	2.4	429

28

Table 4: Bar Graph of Reading Growth from 6/98-3/99

	A	B	C	D	E	F	G
1	Grade Equivalent						
2	2.6						
3	2.4						
4	2.2						
5	2						
6	1.8						
7	1.6						
8	1.4						
9	1.2						
10	K						
11	Student	Jon H.	Mario D.	Jon P.	Jeff H.	Bianca M.	Kathryn B.
12							
13	Grade Equivalent						
14	2.6						
15	2.4						
16	2.2						
17	2						
18	1.8						
19	1.6						
20	1.4						
21	1.2						
22	K						
23	Student	Brain C	Christa S.	Maurice R.	Aly R.	Rishard W.	
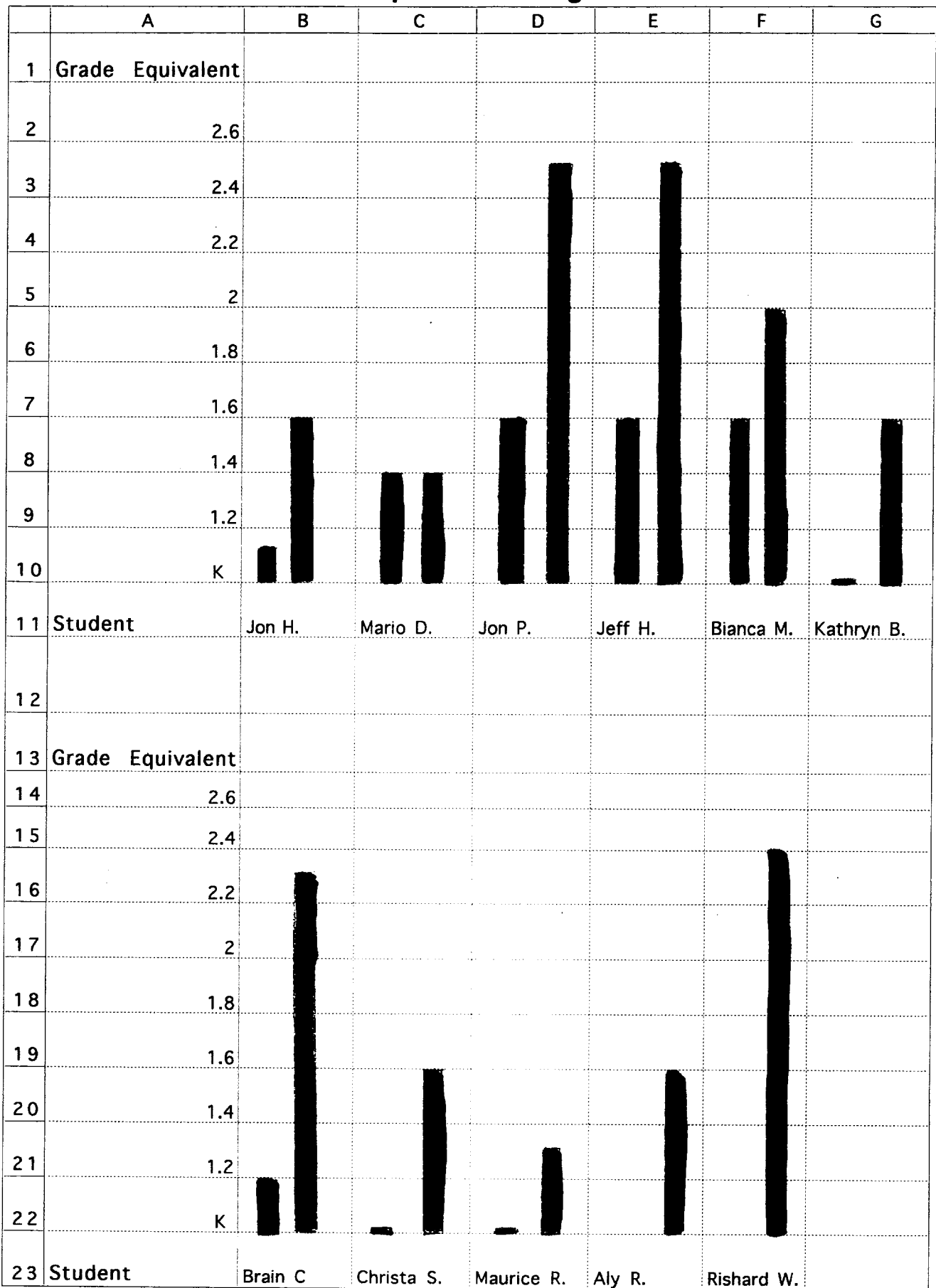
Summary

This study examined: 1). Whether Project Read, a multisensory, direct concept approach to reading resulted in meaningful gains for students with learning disabilities and 2). The perception of teachers implementing Project Read. A sample of 11 elementary school students with varying learning disabilities in grades 2 and 3 from West Windsor-Plainsboro School District were given the Gates MacGinitie Reading Test. Scores from June of 1998 were compared to that of scores for March of 1999. These results are summarized in Tables 1 through 3. They illustrate the fact that all of the students made some type of gain in their reading scores. There were no regressions, while several made minimal gains, others made moderate gains.

Chapter V

SUMMARY, FINDINGS, AND CONCLUSIONS

Introduction

This study was conducted to determine if the multisensory, direct concept teaching method used in Project Read resulted in meaningful gains in reading achievement for children with learning disabilities. Scores from the Gates MacGinitie Reading Test were compared from June 1998 to March 1999

Summary and Conclusions

Since using an appropriate reading program with students with learning disabilities is so crucial, finding a successful one is critical. Research shows that a multisensory, direct teaching approach is very beneficial for learning disabled students. Therefore, the multisensory, direct teaching approach of Project Read was investigated. A sample of 11 students with the classification of learning disabled from grades 2 and 3 participated in the study. Project Read was implemented from September 1998 through March 1999. The Gates MacGinitie Reading Test was administered in March 1999. Scores from June 1998 were compared with scores from March 1999.

The results indicated that all the participants in the study made gains in their reading scores. There were no regressions. While several exhibited minimal growth, others made moderate gains.

Discussion and Implications

The results of this study supported the use of Project Read as an effective reading program for students with learning disabilities. All students in the study made some type of gains in their reading scores of the Gates MacGinitie Reading Test. Therefore, the use of Project Read, a multisensory, direct concept teaching method for students with learning disabilities would be recommended as an effective approach.

Implications for Further Study

A previously mentioned limitation of this study was the small sample size. Students from only one public school system were studied. Using a larger sample as well as using samples from other schools may be helpful. Also, the study focused only on in-class implementation of Project Read. It would also be of interest to compare scores after follow-up lessons were done at home for a time period.

A comparison of Project Read to another reading program developed for learning disabled students would be of benefit as well. This would allow researchers to examine differences and similarities among the groups participating in each program.

Further research should focus on other multisensory, direct teaching approaches to help benefit students with learning disabilities. For example, researching the effectiveness of Reading Recovery, Open Court, Scott-Foresman, and the Orton Gillingham approach would be of interest.

References

Chall, Jeanne S. & Goodman, K. (1993). Point/Counterpoint: Whole Language Versus Direct Instruction Models. Reading Today, 10 (3), 8-10.

Cornwall, Anne. (1992). The Relationship of Phonological Awareness, Rapid Naming, and Verbal Memory to Severe Reading and Spelling Disability. Journal of Learning Disabilities, 25 (8), 532-538.

DiVeta, Susan Kay & Speece, D. L. (1990). The Effects of Blending and Spelling Training on the decoding Skills of Young Poor Readers. Journal of Learning Disabilities, 23 (9), 579-582.

Duffy, Gerald G. & Roehler, L. R. Matching Direct Instruction to Reading Outcomes. (1982). Language Arts, 59 (5), 476-480.

Eldredge, J. Lloyd, Quinn, B., & Butterfield D. (1990). Causal Relationships Between Phonics, Reading Comprehension, and Vocabulary Achievement in the 2nd Grade. Journal of Educational Research, 83 (4), 201-214.

Foorman, Barbara R. & Liberman, D. (1989). Visual and Phonological Processing of Words: A Comparison of Good and Poor Readers. Journal of Learning Disabilities, 22 (6), 349-353.

Gersten, Russel & Keating, T. (1987). Long-Tern Benefits from Direct Instruction. Educational Leadership, 44 (6), 28-31.

Gough, Philip & Tunmer, W.E. (1986). Decoding, Reading, and Reading Disability. Remedial and Special Education, 7 (1), 6-10.

Hargis, Charles, Terhaar-Yonkers, M., Williams, P.C., & Reed, M. R. (1992). Matthew Effects in Word Recognition Development. Tennessee Education, 22 (2), 31-34.

Hurford, David P. (1990). Training Phonemic Segmentation Ability with a Phonemic Discrimination Intervention in 2nd and 3rd Grade Children with Reading Disabilities. Journal of Learning Disabilities, 23 (9), 560-568.

Kochnower, J. PhD., Richardson, E. PhD., & DiBenedetto, B. (1983). A Comparison of the Phonic Decoding Ability of Normal and Learning Disabled Children. Journal of Learning Disabilities, 16 (6), 348-351.

Moilanen, Carolyn. (1989). Project READ in the Portland Public Schools: 1987-88 Evaluation Report. Research and Evaluation Department, Portland Public Schools, Portland, Oregon, 2-28.

Samuels, S. Jay & Farstrup, A. E. (1992). What Research Has to Say About Reading Instruction, 2nd Edition. International Reading Association, Inc. Newark, Delaware.

Stanovich, Keith E. (1988). Explaining the Difference Between the Dyslexic and the Garden-Variety Poor Reader: The Phonological-Core Variable-Difference Model. Journal of Learning Disabilities, 21 (10), 590-604.

Torgesen, J., Wagner, R.K., & Rashotte, C.A. (1994). Longitudinal Studies of Phonological Processing and Reading. Journal of Learning Disabilities, 27 (5), 276-286.

APPENDIX A

REQUEST TO CONDUCT THE STUDY

November 9, 1998

Dr. Mary Tamm
Special Services Dept.
West Windsor-Plainsboro School District
506 Plainsboro Road
P.O. Box 687
Plainsboro, NJ 08536-0687

Dear Dr. Tamm,

I am writing to request permission to do a research study for my thesis project. I would like to study the effectiveness of Project Read-Language Circle on students with learning disabilities. If granted permission through the district, I will be observing the children using the Project Read-Language Circle materials. I will also be requesting permission from the student's parents. I will survey teachers in the district who use this system. I will the compare reading scores of my current students from June 1998 to December 1998. All information gathered would be strictly confidential and used only for the purpose of this study.

Thank you for your time and consideration. If you have any questions, please contact me at the Hawk School.

Sincerely,

Susan L. Pennock

November 9, 1998

Ms. Denise Mengani
Maurice Hawk Elemenary School
West Windsor-Plainsboro School District
Princeton Junction, NJ 08536

Dear Ms. Mengani,

I am writing to request permission to do a research study for my thesis project. I would like to study the effectiveness of Project Read-Language Circle on students with learning disabilities. If granted permission through the district, I will be observing the children using the Project Read-Language Circle materials. I will also be requesting permission from the student's parents. I will survey teachers in the district who use this system. I will the compare reading scores of my current students from June 1998 to December 1998. All information gathered would be strictly confidential and used only for the purpose of this study.

Thank you for your time and consideration. If you have any questions, please contact me at the Hawk School.

Sincerely,

Susan L. Pennock

APPENDIX B

CONSENT FORM

November 29, 1998

Dear Parents,

    As I previously discussed with you, I am completing my thesis this year for my Masters in Learning Disabilities at Rowan University. The topic of which is Project Read. I am studying the effectiveness of this program on students with learning disabilities. I am writing to request permission to give your child a brief reading assessment sometime in January. No names will be used in the project and results will be strictly confidential.

    If you have any questions or concerns, please feel free to contact me at the Hawk School, 716-5425 or at home, 371-0767. Thank you for your consideration.

Sincerely,

Susan L. Pennock

****

Please sign, date, and return this portion as soon as possible. _____
                                                                                                        date

I, _____, grant my permission for my child, _____,
to be given a reading assessment.

I, _____, do not grant permission for my child, _____,
to be given a reading assessment.

APPENDIX C

WORKSHOP MATERIALS

An Overview Of
The Reading
Comprehension Strand
Project Read

Authors:
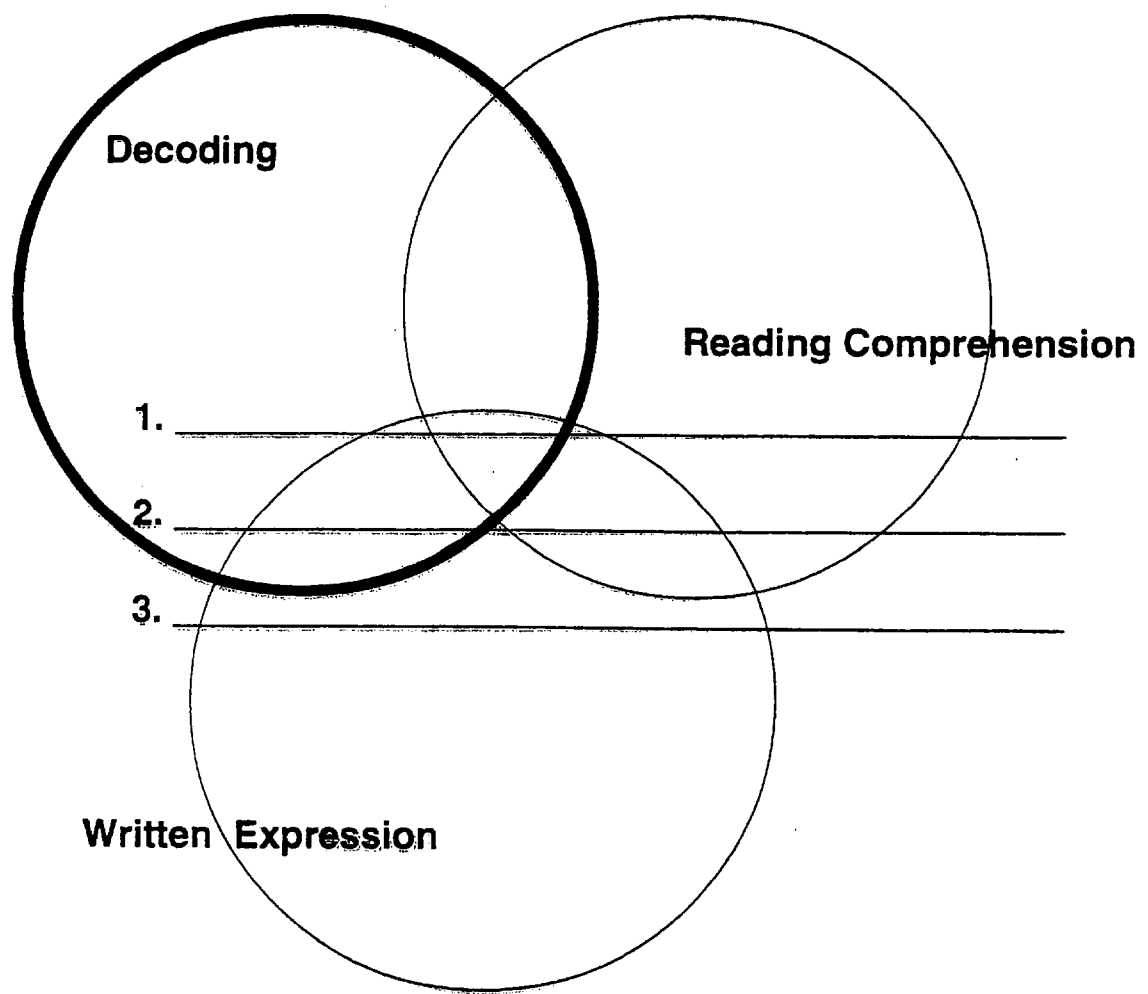Victoria E. Greene

Mary Lee Enfield, Ph. D.

Presented by:
Debbie Cramer-Language Circle-Project Read Consultant

October 23, 1998

Principles of Project Read
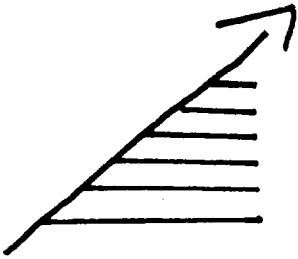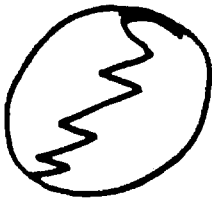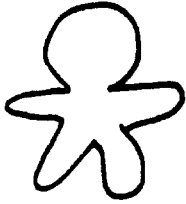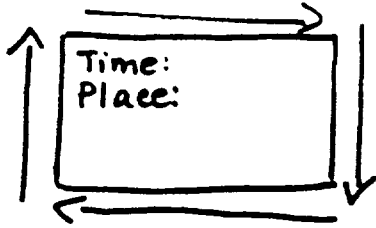
Curriculum & Instruction

Decoding

Reading Comprehension

1. _____

2. _____

3. _____

Written Expression

AGENDA

I. Background-Project Read

II. Introduction to the Reading Comprehension Strand

III. Story Form Comprehension Skills and Concepts

IV. Report Form Comprehension Skills and Concepts

Time:
Place:

RATIONALE:

Story form teaches students how to gather information from literature so they can better understand themselves and the world around them. We want students to love literature and get inside the heart and soul of the characters and then to be able to reason and reflect about them.

Project Read compares the story to a puzzle to make the abstract literary pieces concrete and to help students use association to facilitate memory. Reading a story is like putting a puzzle together. When they put the pieces together, they understand the message of the story.

Report Form teaches students a process that enables them to gather, classify and store information from factual materials such as reports and articles. We want students to be able to collect facts from expository text and by applying the **report form process**, sequence and organize the data into a logical, systematized outline

format. The students can then transfer this to an oral or written report.

Project Read teaches students the anatomy of a report by comparing it to the structure of the human skeleton. The abstract parts of a report are made concrete by helping students to understand the relationship of each part to the whole. When all of the parts have been identified and systematized using the process, the report becomes meaningful to the student and the important facts will be filed and stored in their memory banks. Once students have mastered the steps in the report form process, they have also learned critical study skills.

In both Story and Report Form Comprehension, we are not teaching new skills, however, by using multisensory techniques and progressively ordering the skills so that they build from simple to complex, the abstract concepts are made concrete. This enables students to actively participate, interact and comprehend both literature and expository text.

SETTING

Type

Time

Place

CLIMAX
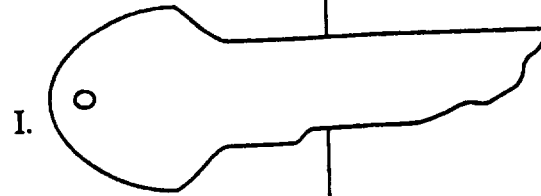
FALLING ACTION

CONFLICT

RISING ACTION

INCITING FORCE

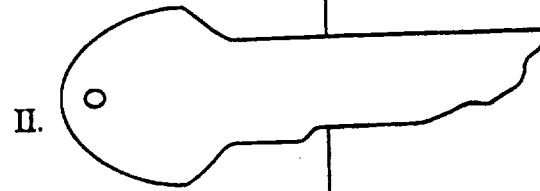CHARACTERS:
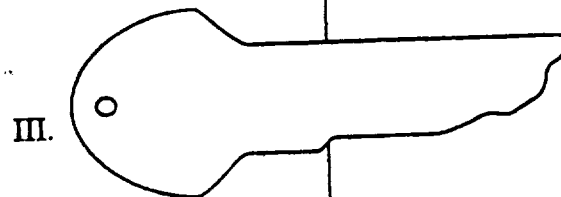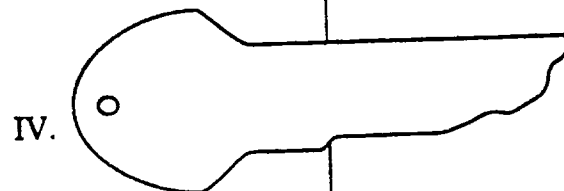
WORKSHEET C

Title:

Subject:

I.

A. _____
    1. _____
    2. _____
    3. _____
B. _____

II.

A. _____
B. _____
C. _____
    1. _____
    2. _____

III.

A. _____
B. _____
C. _____

IV.

A. _____
B. _____
    1. _____
    2. _____

ELEMENTARY PHONICS

CONCEPTS	VAKT

I.   Language

    A. Oral   ☐ birth story
                                  ☐ sound blending

    B. Written   ☐ alphabet
                                  ☐ stars

II. Sound/Symbol

    A. Consonants

- ☐ clipping
- ☐ skywriting
- ☐ cards for gluing
- ☐ memory box
- ☐ felt paper
- ☐ magic slates

    B. Short Vowels

- ☐ hand signals
- ☐ puppets
- ☐ cards for gluing
- ☐ skywriting
- ☐ memory box
- ☐ felt paper
- ☐ magic slates

III. Word

    A. Vowel

- ☐ clapping
"Every word has to have a vowel."

    B. Red Words
        (letter names)

- ☐ arm tapping
- ☐ red fabric
- ☐ red plastic needlepoint canvas and red crayon – write on paper strip or adding machine tape

    C. Word Blending

- ☐ tap and sweep

APPENDIX D

PROJECT READ OBSERVATION CHECKLIST

PROJECT READ OBSERVATION CHECKLIST

ACTIVE PARTICIPATION (whole class)

____ 1. Everyone doing something observable by teacher

DIRECT INSTRUCTION (critical)

____ 1. Small sequenced units

____ 2. Frequent practice

____ 3. Reinforce correct response

____ 4. Correct errors

____ 5. Monitor student progress

____ 6. Small group instruction

____ 7. Modeling generalization of mastered skills

MULTI-SENSORY (critical)

____ 1. Verbal learning experiences

____ 2. Auditory learning experiences

____ 3. Visual learning experiences

____ 4. Kinesthetic learning experiences

MADELINE HUNTER ELEMENTS

____ 1. Anticipatory set (focus, practice, establish readiness)

____ 2. STATEMENT OF OBJECTIVES (critical)

____ 3. Deliver information

____ 4. Model practice, learning behavior

____ 5. Check for understanding

____ 6. Guide practice

____ 7. Provide independent practice

SMALL SKILLS TO LARGE (critical)

____ 1. Systematic, logical links related among skills

NOTES: