

ASSISTED READING AS A REMEDIAL
READING TECHNIQUE AT THE HIGH SCHOOL
LEVEL: A PSYCHOLINGUISTIC EVALUATION

by

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11

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
LIST OF TABLES	viii
LIST OF FIGURES.	ix
Chapter	
I: INTRODUCTION	1
PSYCHOLINGUISTIC PRINCIPLES OF THE READING PROCESS.	2
THE PROBLEM.	4
PURPOSES OF THE RESEARCH	5
DEFINITION OF TERMS.	6
II. RATIONALE AND REVIEW OF RELATED LITERATURE	7
GENERATIVE-TRANSFORMATIONAL GRAMMAR.	8
LANGUAGE ACQUISITION	10
THE PSYCHOLINGUISTIC NATURE OF THE READING PROCESS.	12
Predicting	14
Confirming	15
Comprehending.	15
LANGUAGE CUE SYSTEMS	16
Graphophonic	16
Syntactic.	16
Semantic	18
ASSISTED READING	19

Table of Contents (Continued)

Chapter	Page
THE READING MISCUE INVENTORY AND MISCUE ANALYSIS	26
MISCUE RESEARCH.	28
IMPLICATIONS OF MISCUE RESEARCH FOR THE PRESENT STUDY.	30
SUMMARY.	31
III. DESIGN OF THE STUDY.	33
Subject and Setting.	33
Treatment.	34
Implementation of Assisted Reading	34
Stage One Taping Procedure	35
Stage Two Taping Procedures.	36
Stage Three Procedures	37
Questioning Strategies Used During the Three Stages of Assisted Reading	38
Stage One.	38
Stage Two.	38
Stage Three.	39
Oral Rereading Procedure	40
Selection of Reading Material.	41
DATA COLLECTION.	42
Reading Miscue Inventory Procedures.	42
Student Interviews	43
California Reading Achievement Test.	44
School Records	45

Table of Contents (Continued)

Chapter	Page
DATA ANALYSIS.	45
Reading Miscue Inventory Analysis.	45
Student Interview Analysis	48
California Reading Achievement Test Analysis .	48
School Records	49
CASE STUDY FORMAT.	49
IV. RESULTS OF THE STUDY	51
A COMPARISON OF THE PRE- AND POST-READING MISCUE INVENTORY SCORES FOR THE TOTAL GROUP	52
Research Question.	52
Comprehension Patterns	52
Grammatical Relationships.	52
Grammatical Function	55
Sound Relationships.	55
Graphic Relationships.	55
RMI Data Summary	58
Exploratory Questions.	58
Question 1	58
Question 2	59
CASE A	62
CASE B	71
CASE C	79
CASE D	87
CASE E	95
CASE F	103

Table of Contents (Continued)

Chapter	Page
CASE G . . . . .	.111
V. SUMMARY, CONCLUSIONS, AND IMPLICATIONS . . . . .	.119
SUMMARY. . . . .	.119
CONCLUSIONS. . . . .	.120
OBSERVATIONS . . . . .	.123
IMPLICATIONS FOR INSTRUCTION . . . . .	.130
Strategies and Procedures, . . . . .	.131
Materials. . . . .	.132
Setting. . . . .	.133
Teacher Preparation, . . . . .	.134
IMPLICATIONS FOR FURTHER RESEARCH. . . . .	.134
BIBLIOGRAPHY . . . . .	.136
APPENDICES	
A. PROFICIENT SILENT READING MODEL. . . . .	.142
B. ORAL READING SELECTIONS FOR PRE- AND POST-RMI. . . . .	.144
C. READING MISCUE INVENTORY CODING SHEET READING MISCUE INVENTORY READER PROFILE. . . . .	.146
D. INTERVIEW WITH MOTHER OF SUBJECT A . . . . .	.149
VITA . . . . .	.152

LIST OF TABLES

Table		Page
IV-1.	Assisted Reading Stages and Number of Sessions, Test Scores, and Chronological Age	53
IV-2.	Comprehension Pattern and Retelling Scores: Pre- and Post-RMI Percentages	54
IV-3.	Grammatical Relationship: Pre- and Post-RMI Percentages	56
IV-4.	Sound and Graphic Similarity: Pre- and Post-RMI Percentages	57
IV-5.	California Reading Achievement Test National Percentile Comprehension Scores: Pretest and Post-Test	60

LIST OF FIGURES

Figure		Page
IV-1.	Comprehension -- Subject A.	64
IV-2.	Grammatical Relationships -- Subject A.	65
IV-3.	Grammatical Function -- Subject A	66
IV-4.	Sound Relationships -- Subject A.	67
IV-5.	Graphic Relationships -- Subject A.	68
IV-6.	Comprehension -- Subject B.	73
IV-7.	Grammatical Relationships -- Subject B.	74
IV-8.	Grammatical Function -- Subject B	75
IV-9.	Sound Relationships -- Subject B.	76
IV-10.	Graphic Relationships -- Subject B.	76
IV-11.	Comprehension -- Subject C.	81
IV-12.	Grammatical Relationships -- Subject C.	82
IV-13.	Grammatical Function -- Subject C	83
IV-14.	Sound Relationships -- Subject C.	83
IV-15.	Graphic Relationships -- Subject C.	84
IV-16.	Comprehension -- Subject D.	89
IV-17.	Grammatical Relationships -- Subject D.	90
IV-18.	Grammatical Function -- Subject D	91
IV-19.	Sound Relationships -- Subject D.	92
IV-20.	Graphic Relationships -- Subject D.	92
IV-21.	Comprehension -- Subject E.	97

List of Figures (Continued)

Figure		Page
IV-22.	Grammatical Relationships -- Subject E.	98
IV-23.	Grammatical Function -- Subject E	99
IV-24.	Sound Relationships -- Subject E.	100
IV-25.	Graphic Relationships -- Subject E.	101
IV-26.	Comprehension -- Subject F.	105
IV-27.	Grammatical Relationships -- Subject F.	106
IV-28.	Grammatical Function -- Subject F	107
IV-29.	Sound Relationships -- Subject F.	108
IV-30.	Graphic Relationships -- Subject F.	109
IV-31.	Comprehension -- Subject G.	113
IV-32.	Grammatical Relationships -- Subject G.	114
IV-33.	Grammatical Function -- Subject G	115
IV-34.	Sound Relationships -- Subject G.	116
IV-35.	Graphic Relationships -- Subject G.	116

Chapter I

INTRODUCTION

Students who have difficulty learning to read present the most perplexing problems in our educational system. The National Advisory Committee on Dyslexia and Related Disorders (1969) concluded that failure to learn to read was "the most serious educational problem confronting the nation," while the United States Office of Education placed the "right to read" as a national goal for the 1970's. Currently (1977) Right to Read is a legislated program with a budget of twenty-six million dollars. According to Cook (1977) the last survey conducted by the United States Census Bureau in 1969 revealed that approximately 1.4 million persons fourteen years old and over were illiterate. While methods and materials abound to help combat the problem of illiteracy, all need continued study particularly with non-readers. One area of promise is the theory emerging from psycholinguistic research which suggests that reading is language, and readers are users of language (K. Goodman, 1976d). Further research based on the use of a "whole" language (K. Goodman, 1976c) approach to the teaching of reading needs to be conducted.

The underlying assumption of this study is that those

students who experience problems in learning to read could be helped if reading were presented in the context of whole language. This assumption is supported by the theoretical bases of the psycholinguistic principles of the reading process.

PSYCHOLINGUISTIC PRINCIPLES OF THE READING PROCESS

According to the psycholinguistic view of the reading process, children need the opportunity to use their language competence to act on the whole language in order to get to meaning. Y. Goodman (1976) says:

Most educators operate on the assumption that children learn most easily moving from the concrete to the abstract. The concrete of language is wholeness. The concrete of language is the interaction between speakers in a shared setting with the major purpose being communication. The sound system of language without the grammatical system which gives organization and structure to meaning is abstract--so abstract that the scientists who study the sound system argue about its existence, its description and its variations. Yet many reading programs operate on the premise that it is perfectly logical to start beginning reading by teaching the most abstract aspect of language--the system's smallest units Beginning readers are often provided with abstract sounds and words and then have the task of placing these abstract units back into the language as a whole. . . . Research supports the basic assumption that when reading takes place, even at the earliest moment, all three systems of language must be intact in order for the reader to understand that reading is language and that the purpose of reading is to get at the author's message (p. 126).

K. Goodman (1976d), Burke (1976a), Menosky (1976), and Page (1976) view the reading process as a psycho-

linguistic guessing game which involves the interaction between language and thought. They view the efficient reader as one who has developed the skill of integrating and inter-relating the graphophonic, semantic, and syntactic cue systems of the language so as to select the fewest and most productive cues necessary for the reconstruction of meaning. These psycholinguists refer to the written shapes and spoken sounds of the language as the graphophonic cue system. The syntactic cue system consists of the grammatical structure of the language, while the semantic cue system allows for the reconstruction of meaning for comprehension. They believe that these systems must function interdependently; unless they do, reading for meaning is an almost impossible act.

Smith (1975), a cognitive psychologist, contends that the reader can only develop the basic skills necessary for effective reading by reading. It is only through reading that the reader

. . . can test his hypotheses about the nature of the reading process, establish distinctive feature sets for words and meanings with a minimum of visual information and discover how not to overload the brain's information-processing capacity and avoid the bottlenecks of memory (p. 185).

The reader who learns to read by reading has the advantage of working with natural language. He can rely on the semantic, the syntactic, and the graphophonic systems of his language as he reads. Y. Goodman (1975) explains:

. . . In natural language any single language unit may have a different sound, be a different part of speech, or have a different meaning from the way it was taught in isolation. To isolate units of language and teach them directly to readers confuses learning and increases complexity, for it creates a more abstract task for readers than they face with whole language (p. 35).

Based on these theories of the psycholinguistic nature of the reading process it appears that an approach to the teaching of reading which uses a whole language environment rather than isolated units of language would be more effective, i.e., the ideal situation would be one where reading is learned by reading.

THE PROBLEM

Many high school students need help because they are ineffective and inefficient readers due to the overuse of graphophonic cues. It is assumed that involvement in whole language would help them make more effective use of the language cue systems and improve their reading efficiency.

An approach which may prove to be an effective means of involving high school students in whole language is assisted reading. Hoskisson (1974) describes assisted reading as a means to help students "learn to read in a manner similar to the way they learned their natural language, i.e., they are immersed in reading stories from the beginning." He further states that assisted reading

. . . is based on the premise that children need to see graphic shapes of words, hear them pronounced, and follow their patterning in sentences that contain enough syntactic and semantic context for them to relate their experiences and conceptual knowledge to the material being read (p. 298).

Based on this rationale it was assumed that high school students who experience difficulty in learning to read could learn if involved in whole language. Assisted reading was chosen to provide the means of involvement. Through involvement in whole language they are provided the opportunity to use not only the graphophonic cue system, but also the syntactic and semantic cue systems of their language.

This study focused on seven high school students who had a history of reading problems.

PURPOSES OF THE RESEARCH

Assisted reading was used to investigate the following question:

1. Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The following exploratory questions were investigated:

1. Will high school students with a history of

reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

2. Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

DEFINITION OF TERMS

Whole Language Approach. The whole language approach presents language in its natural and total context, not as a collection of parts (words, syllables, sounds), but as an expression of complete thoughts or ideas capable of being understood by the reader through the integrated use of the graphophonic, syntactic and semantic cue systems.

Reading Disability. A reading disability, for purposes of this study, indicates the student was having difficulty with content area subjects which involved reading and was reading three or more years below his grade level in school according to previous reading achievement test scores.

Chapter II

RATIONALE AND REVIEW OF RELATED LITERATURE

The purpose of this study was to determine whether the use of the whole language approach in the teaching of reading would result in more effective use of graphophonic, syntactic, and semantic cue systems by high school students with a history of reading problems.

RATIONALE

The psycholinguistic based rationale for this study is supported by some of the underlying assumptions of the theories of generative-transformational grammar and language acquisition. Generative-transformation grammar theory assumes that the child is a creative user of language, i.e., he has the ability to say things he has never heard before and to produce speech that is appropriate to a situation. The theory of language acquisition assumes that the child can construct the rules of his language without formal instruction and has an infinite capacity for language.

From a psycholinguistic point of view, the reading process consists of the child using his natural language ability and thought as he encounters the printed page. Assisted reading, a vehicle for involving the reader in whole language, is based on psycholinguistic insights into children's language ability provided by the theories of

generative-transformational grammar and language acquisition.

GENERATIVE-TRANSFORMATIONAL GRAMMAR

Generative-transformational grammar is a theory which attempts to provide a formal description of the grammar of language. According to Smith (1973) the main concept of generative-transformational grammar which is meaningful to the reading process is syntax. Syntax as explained by Chomsky (1965) involves the two levels of language--surface structure and deep structure which are linked by transformations. Chomsky (1965) describes grammar as "a system of rules that in some explicit and well-defined way assigns structural descriptions to sentences" (p. 8). A structural description of a sentence involves its semantic, syntactic, and phonological representations. It is the syntactic representation which involves both the surface structure and the deep structure. Chomsky (1965) says:

The phonological component of a grammar determines the phonetic form of a sentence generated by the syntactic rules. That is, it relates a structure generated by the syntactic component to a phonetically represented signal. The semantic component determines structure generated by the syntactic component to a certain semantic representation. Both the phonological and semantic components are therefore purely interpretative. Each utilizes information provided by the syntactic component concerning formatives, their inherent properties, and their interrelations in a given sentence. Consequently, the syntactic component of a grammar must specify, for each sentence, a deep structure that determines its semantic interpretation and a surface structure that determines its phonetic interpretation. The first of these is interpreted by the semantic component; the second, by the phonological component (p. 16).

Chomsky believes that every speaker has mastered and internalized a generative-transformational grammar or set of rules that govern his use of language. Chomsky's work attempts to clarify the underlying generative principle that the linguist must seek to represent in a descriptive grammar. He says,

The form of language is that constant and unvarying factor that underlies and gives life and significance to each particular new linguistic act. It is by having developed an internal representation of this form that each individual is capable of understanding the language and using it in a way that is intelligible to his fellow speakers. This characteristic form determines and inheres in each separate linguistic element. The role and significance of each individual element can be determined only by considering it in relation to underlying rules that determine the manner of its formation (1970, p. 204).

Slobin (1971) explains that transformational grammar allows us to go beneath the surface structures of sentences by transforming them into deep structures where meaning is found. Semantic interpretations must be made for the surface structure to be phonetically interpretable. It is only through semantic interpretations that both surface structure and deep structure can be used to obtain meaning from any language. According to Smith and K. Goodman (1974), this complex system of syntax enables us to understand a sentence because "the meaning of a sentence is not given by the individual words, but by the manner in which words interact with each other. If it were not for the use of syntax, "man bites dog" would mean the same as "dog bites man" (p. 241).

These theories lead one to view the child as possessing the capability to develop complex rule systems of language without formal training. They assume that the child is naturally endowed to learn and to use language.

The underlying assumptions of this study, i.e., that children can learn to read by reading in a manner similar to the way they learned to speak and that those who have failed to learn to read can be helped if reading is presented in the context of whole language, are supported by the following theories about how children acquire language.

LANGUAGE ACQUISITION

Nativistic theorists, Chomsky (1965), Lenneberg (1967), and McNeill (1970), believe that the human mind is uniquely designed to detect the underlying rules of language and to use them within the context of specific languages. Lenneberg (1967) believes that language is biologically determined and is related to general cognitive growth and physical development. McNeill (1970) theorizes that the child possesses certain innate abilities which allow him to use finite linguistic input to develop the language competence necessary for performance. He believes that "the concept of a sentence may be part of man's innate mental capacity" (1970, p. 2), and that it allows the child to organize and interpret the language around him. Chomsky

(1965) also hypothesizes that the concept of the sentence is innate and that the child constructs the rules of language by interacting with language.

Cognitive theorists, Slobin (1971) and Smith (1975), view the child as an active participant in the language learning process. Slobin (1971) believes the child has an innate means of processing information and internalizing the grammar of his language from the speech he hears. He contends that the child's general cognitive and mental development is the critical determinant of language acquisition. Smith (1975) believes the child acquires language as he searches to find meaning in his world. He views the child as one who borrows adult words for his own purposes by means of hypothesis-testing on the basis of trial-and-error; the child produces a sound to try out his hypothesis, and if it works he keeps it; if it does not work, he tries another. It is through this kind of hypothesis-testing that he forms the rules of his language, and all language development takes place in a natural manner.

Therefore, the development of the child's knowledge of the written language relies on the language competence he has developed while learning to speak. Children learn to read as they construct the rules of written language, just as they learned to speak as they constructed the rules of spoken language. It is assumed that hypothesis-testing about written language takes the same form as it does with spoken

language. The interaction of language and thought that leads to the development of spoken language also leads to the development of reading ability through the child's construction of the rules and interrelationships of the written language.

THE PSYCHOLINGUISTIC NATURE OF THE READING PROCESS

K. Goodman (1970; 1976c) describes the reading process as a psycholinguistic guessing game which involves the reader as a user of language who processes graphophonic, syntactic, and semantic information in his attempt to get meaning from print. This process, according to Goodman, has two characteristics. "One is that the reader is attempting to get at meaning. The second is that he or she is using whole language to do so" (1976c, p. 1). He further states:

The learner of reading has a highly developed language competence which is his greatest resource in learning to read. In fact, the key to successful reading instruction is . . . in the learner. With a new respect for the learner we can make learning to read and write an extension of the natural language learning the child has already accomplished without professional assistance (1976c, p. 1).

K. Goodman (1973) contends that written language which is presented from the beginning of children's introduction to print should be whole, natural, and relevant to afford children the opportunity to use their already developed language competence. He feels that:

. . . . Because we have not appreciated the linguistic competence of beginning readers, we have fractured written language into abstract bits and pieces and made the learners find out how to put it back together to get the sense. It is a tribute to the language learning ability of children that many of them have learned to read in spite of the obstacles placed in their way (1973, p. 13).

Smith and K. Goodman (1974) point out that

. . . insights of the kind found in linguistics and psychology appear to be leading to a profound review of long-held beliefs about reading and how it is learned. It is becoming clear that reading is not a process of combining individual letters into words, and strings of words into sentences, from which meanings spring automatically. Rather the evidence that the deep-level process of identifying meaning either precedes or makes unnecessary the process of identifying individual words (p. 241).

They believe teachers need to view the developing reader as a user of language and provide him with opportunities to learn to read in much the same way as he learned his language through hypothesis-testing. They observe that

. . . The child learning to read, like the child learning to speak, seems to need the opportunity to examine a large sample of language to generate hypotheses about the regularities underlying it, and to test and modify these hypotheses on the basis of feedback that is appropriate to the unspoken rules that he happens to be testing (1974, p. 242).

Carroll (1976) and K. Goodman (1976b), when discussing the reconstruction of meaning as the purpose of reading, say that meaning begins with the author's language and thought and that it is fully realized when the reader uses his language and thought to interact with those of the author. Y. Goodman, Burke, and Sherman (1974) also describe reading as a problem solving process which involves inter-

action between the reader's language and thought and the author's language and thought. They explain that the reader uses his own thoughts and his own view of the world to interpret what the author has written. Since the reader is active in his search for meaning, his interpretations are limited only by what he knows. They believe that the reader in his attempt to solve the problem of reconstructing meaning uses a set of quite complex strategies (see Appendix A for their Model of Proficient Silent Reading). These strategies, which are operative within the reading process from the beginning of reading acquisition, involve predicting, confirming, and comprehending, and "are used by all readers with varying degrees of proficiency. . ." (p. 15).

Predicting

Before the reader begins reading, he predicts or forms hypotheses about the material he is going to read. For example, he predicts what the story he is going to read is about, and during the actual reading he predicts what the next word in a sentence is going to be. He also may predict whether the next event in the story is going to be happy or sad. After the reader makes his predictions, he tests his hypotheses to find out if they make sense. By doing this, he either "confirms or disconfirms his prediction"

(Y. Goodman, Burke, and Sherman, 1974, p. 17).

Confirming

The reader tests his predictions by asking two questions to test their syntactic and semantic acceptability. The questions, according to Y. Goodman, Burke, and Sherman, that the reader asks himself are

1. Does this sound like language to me? and
2. Does this make sense to me?

Depending on his answer to the above questions, the reader will either continue reading or he will

1. stop and rethink the problem;
2. regress, reread, and pick up additional cues until the material makes sense;
3. keep reading in order to build up additional context, which in turn may generate enough understanding to decide what went wrong; or
4. stop reading because the material is too difficult (1974, p. 17).

Comprehending

As the reader predicts and attempts to confirm his hypotheses, he develops and integrates meaning into his already established meaning system (Y. Goodman, Burke, and Sherman, 1974).

The reader who attempts to construct meaning through predicting, confirming, and comprehending strategies uses the three language cue systems to do so, provided he is

presented with whole language. The three language cue systems--the graphophonic, syntactic, and semantic-- must function interdependently if the reader is to understand what he reads.

LANGUAGE CUE SYSTEMS

Graphophonic

Menosky (1976) describes the graphophonic cue system as "the complex set of relationships between the graphic representations . . . and the phonological representations of the language" (p. 75). While the reader is sampling and predicting in the act of reading, he uses both graphemes and their related phonemes as cues which interact with the syntactic and semantic cues. These graphophonic cues help the reader determine whether or not he is making good predictions as he samples the surface structure. They aid him in correcting miscues which do not sound right or do not make sense. Menosky says further that the "graphophonic cues are of less importance than the other cues" (1976, p. 79). Menosky stresses, however, that

. . . graphophonic cues are useful for readers who integrate and interrelate the cue systems, and who, in their simultaneous processing of these cues, are able to make decisions about importance, and therefore use the cues that are necessary when they are necessary (1976, p. 79).

Syntactic

The syntactic component of language according to

Cairns and Cairns (1976) is composed of the rules which describe the grammatical structure of sentences along with the relationship between parts of a sentence. A child comes to the task of learning to read with the ability to use these rules in a proficient manner. Burke (1976b) points out that the syntactic system is unique since it is through this system that all three language systems interact. She says

. . . If what we produce is syntactically acceptable, it can be verified in relation to semantic acceptability and graphophonic information. When what is produced is syntactically and semantically acceptable, it can be verified on the basis of graphic similarity. The successful application of one system is measured by the functioning of the other two systems (p. 80).

The syntactic cue system aids the effective reader in correcting miscues since his knowledge of the rules of his language will help him recognize unacceptable structures when he miscues while reading. When he realizes that his miscues have created an unacceptable syntactic structure, he attempts to create another structure that makes sense to him. In this attempt to correct, he uses syntactic, semantic, and graphophonic cues. Burke (1976b) emphasizes the importance of the syntactic cue system when she says

The syntactic system can be pictured as that point at which thought processes and language processes merge in deep structure. If the reader recognizes language as a specific instance of meaning-gaining and recognizes reading as an expression of language, then the finite nature of the syntactic system and the intuitive control of it developed in oral language usage are immediately available to the reader.

Perhaps the single most important question which readers can ask, basic to the rest of their attack upon written language, is: Does it sound like language (p. 88)?

Semantic

The semantic cue system allows the reader to obtain meaning from what he reads. This system is composed of the reader's experiences and conceptual background. The reader obtains meaning as he identifies with the author's intended meaning (K. Goodman, 1973). According to Watson (1973a), "the closer the match between the thought and language of the author and the reader, the greater the degree of communication" (p. 103). When the child is an efficient reader, he uses the semantic cue system along with the syntactic and graphophonic cue systems. Page (1976) emphasizes that the "semantic cue system is not independent of the other systems" (p. 92). The systems must function inter-dependently if reading for meaning is to take place.

In summary of the views presented dealing with the psycholinguistic nature of the reading process, K. Goodman (1976a) says

Whether one wishes to understand reading as a process to teach initial literacy or to help readers become more effective, one must start from a base of psycholinguistics, the study of the interrelationships of thought and language. All the central questions involved in reading are psycholinguistic questions, because reading is a process in which language interacts with thought. Psycholinguistics is foundational to all understanding of the reading process (p. 18).

Children come to school with the ability to use language creatively. The semantic, syntactic, and grapho-phonetic cue systems are a part of the language competence they have developed. Education should facilitate the expansion of children's linguistic competence. A model for the teaching of reading should be one which allows the child to use his natural language competence in learning to read.

ASSISTED READING

Assisted reading was used in this study to provide a means of involving the students in the whole language, thus allowing them to apply their language competence in learning to read. Assisted reading, as described by Hoskisson (1974),

. . . is based on the premise that initially children need to see graphic shapes of words, hear them pronounced, and follow their patterning in sentences that contain enough syntactic and semantic context for them to relate their experiences and conceptual knowledge to the material being read Assisted reading provides parents and teachers with the means to help their children learn to read in a manner similar to the way they learned their natural language, i.e., they are immersed in reading stories from the beginning (p. 298).

For instructional purposes, Hoskisson (1975b) has identified three stages in the assisted reading process. These three stages are

Stage I: The teacher reads one sentence or phrase of the story at a time, and the child repeats it.

Stage II: The child begins to recognize certain words from one story to another. The reader now reads all the words except the ones the child shows evidence of knowing.

Stage III: This is a transitional stage where the child begins to ask the reader to let him say the words himself. The reader fills in only where the child has difficulty.

During assisted reading, the reader is provided with stories within the full context of natural language. He is not presented with letters, combinations of letters, or words in isolation. Hoskisson (1975b) states that

Children should learn to read by reading, just as they learn to speak by speaking. Learning to read by reading would provide the child with the general information he needs to verify his hypotheses as to the nature of reading. Immersion in reading would allow the child to formulate the most comprehensive rules of what reading is all about first and develop the more complex aspects of reading at later stages of development (p. 444).

Y. Goodman and Green (1977) also say that

Developing reading proficiency is enhanced through reader interaction or communication with an author. Language environment must be available whenever reading instruction is developed for students. That is, reading instruction must draw upon language in context rather than using isolated exercises (p. 30).

Smith (1971) says that when learning to read

A child has to discover the distinctive features of written material, the significant differences by which alternative letters, words, and meanings can be differentiated. . . . The child needs evidence, not instructions. . . .

meta

.

The child has to learn how the rules of syntax are related to the written aspect of language, together with the relation of visual configurations and semantic interpretations. All this can come about only if the child is given examples, if he is shown what is the same and what is different. He has to be given the raw material so that he can develop the rules for himself. He can only look for the "regularities" that are the basis of all cognitive activity if he is exposed to a large enough sample of "evidence" (pp. 226-28).

According to Y. Goodman and Greene (1977) many readers have not learned to make efficient use of the language competence they have developed because of the over-emphasis on the graphophonic cue system in the teaching of reading. Further, K. Goodman (1976d) also points out that

As users of language, children learning to read their native language are already possessed of a language competence and an ability to learn language which are powerful resources, provided that literacy is treated by schools as an extension of their natural language learning (p. 58).

Assisted reading allows the child to discover the distinctive features of the written language and that reading is an extension of his natural language. It causes him to expand his natural language competence since he experiences the interaction of the three interdependent language cue systems. This is made possible because he does not meet words in isolation, but in the context of the whole language. By being immersed in reading he can interact with more language and increase his understanding of written language.

Although extensive research has not been done in the

area of assisted reading, the results of studies which have been done indicate that it has a positive effect on both reading achievement and attitude.

A study was done by Hoskisson, Sherman, and Smith (1974) with two second-grade children who were experiencing reading problems. Assisted reading was used with these children during the last four months of the school year. Their parents also participated in the application of assisted reading. Both children, who were reading at a very low first grade level at the beginning of the study, increased in tested reading ability and reading rate by the end of the four months. This study also indicated the motivational potential of assisted reading. Their attitude toward reading changed from an initial dislike to the like for reading at the end of the four months. This was evidenced by their expressed desire to read books from both the town and school libraries.

Kindergarten children were involved in another study which used assisted reading in a reading-language program (Hoskisson, 1975b). Ten kindergarten groups with a range of four to eight pupils each participated in assisted reading sessions for thirty minutes per day, four days per week during a nine-week period. Teachers reported that the children enjoyed the assisted reading sessions and demonstrated an unusual amount of enthusiasm about reading. The teachers were pleased also with the language enrichment

provided by assisted reading. They believed that it was helpful especially for the pupils with very poor language backgrounds. At the end of the nine weeks of assisted reading, all but one of the pupils in the low group began to read some words.

Assisted reading was used in a cross-grade tutoring study with first grade children (Hoskisson, 1975b). The first grade group consisted of nine children who were considered as "high risk" with respect to reading achievement based on their percentile scores on the Metropolitan Readiness Test. They participated in the assisted reading program from October until April. Each first grade pupil was assigned a sixth grade "buddy" who read to him for fifteen minutes every day. Initially the "buddy" read to the first grade pupil; however, as the year progressed, the first grade pupils asked to read to their "buddies." In addition, they enjoyed going to the library to look for books which they might want to read. The first grade teachers reported that these children had made excellent progress compared to similar children with whom they had worked previously. The comprehension section of the Metropolitan Primary Reading Test was administered at the end of the program; the low score was 1.6, while the high score was 2.2. The teachers also reported the following additional benefits:

1. the children understood that reading is communication;

2. they regarded reading as fun;
3. they were highly motivated to read to their buddies; and
4. assisted reading had helped develop oral language skills in all of the "high risk" children (p. 449).

Assisted reading was used by the researcher with five fourth-grade pupils for an entire school year. The children were members of a heterogenously grouped class of twenty-seven pupils. Each of the five had been labeled as either learning disabled, emotionally disturbed, or educable mentally retarded. None of the five could read at a primer level and all had a very low self-image. Before using assisted reading with this group of children, two questions were asked by the researcher:

1. "How do you help children who are failures learn to read?" and
 2. "Will learning to read improve their self-image?"
- Assisted reading contributed to the answers to these questions.

After the children were involved in assisted reading by means of a taping procedure developed by the researcher (see Procedure for Assisted Reading in Chapter III), their attitude toward reading improved. By April they also were able to read some stories with the regular fourth grade reading group. The child who had been labeled as learning disabled

and emotionally disturbed was chosen for the lead part in the play Hansel and Gretel. Not only did the child have to read and memorize the lines of the play, but he also had to develop self-confidence to perform before the entire school (Miller and Hoskisson, 1977).

The technique used by C. Chomsky (1976) with five third grade children is similar to assisted reading. She used story books which had been recorded on tape and required that the children listen to a story and at the same time follow the print until they had memorized the words well enough to read it through with ease. The children were involved also in written exercises and language games which were based on the stories they had learned. As a result of this study she concluded that their attitude toward reading had changed and they gained in self-confidence.

The small amount of research that has been done with assisted reading indicates that it is probably a viable technique to facilitate the use of the whole language in the teaching of reading since it provides for the interdependent use of the graphophonic, syntactic, and semantic cue systems. The Reading Miscue Inventory (Y. Goodman and Burke, 1972) provides a means of evaluation that is sufficiently sensitive to evaluate the reader's use of the three language cue

systems and is based on similar underlying assumptions as assisted reading. Therefore, it was used as a pre- and post-measure in this study to determine how each subject used the cue systems prior to and following involvement in whole language.

THE READING MISCUE INVENTORY AND MISCUE ANALYSIS

Kenneth Goodman (1976a) describes a miscue as an oral response made by the reader to written language which does not match the expected response. Miscue analysis allows a psycholinguistic assessment of what the reader does during oral reading and provides a tool for the analysis of differences between oral and expected responses; it enables an evaluation of the reader's use of graphophonic, syntactic, and semantic cues. K. Goodman (1973) began to develop and use miscue analysis as a research tool in 1963. The Preliminary Linguistic Taxonomy of Cues and Miscues was first used by K. Goodman in 1965 to categorize oral reading errors. This pilot study led to the development of the Goodman Taxonomy of Reading Miscues which was first used in a study done by Y. Goodman in 1967. The Reading Miscue Inventory (RMI) is a published program for use in the classroom and clinical settings and is based on the Goodman Taxonomy of Reading Miscues. The RMI is described by Y. Goodman and Burke (1972) as a diagnostic and evaluative instrument which

uses oral reading to examine how the reader uses language and thought processes in the reading act.

Y. Goodman and Burke (1972) explain that the RMI differs significantly from all other diagnostic and evaluative instruments because it provides both a qualitative and quantitative analysis of reading proficiency. The "qualitative analysis evaluates why miscues are made and assumes that they are cued by the language and thought the reader brings to the written material in his attempt to extract meaning from his reading" (Y. Goodman and Burke, 1972, p. 5). With an evaluative instrument which provides only a quantitative analysis, all errors have equal weight since exactness is the goal. Y. Goodman and Burke (1972) provide the following comparison of qualitative and quantitative analysis. They say that in a quantitative analysis

. . . if Bob read went for ran, woods for forest and Jan for Jane seven times, he is seen as having the same number of problems as does John, who reads though for through, frest for forest, and jump for Jane seven times (p. 5).

In a qualitative analysis, Bob's miscues would be considered better than John's because they retain features similar to the words in the text, and because more importantly they are grammatically and semantically acceptable (Y. Goodman and Burke, 1972).

MISCUE RESEARCH

The following studies provide important additional insight and further support for the underlying assumptions of this study.

Kenneth Goodman (1965) used the Preliminary Linguistic Taxonomy of Cues and Miscues in Reading to categorize the oral reading errors of one-hundred first, second, and third grade students. As a result of this study, he found that the subjects could recognize more words in the context of a story than they could in lists. He concluded that the children were able to read more words in context because they were able to use their language cue systems.

The Goodman Taxonomy of Reading Miscues was used in the following studies for the psycholinguistic analysis of miscues.

Y. Goodman (1967) conducted a study with six beginning readers. As a result of this study she found that beginning readers are able to use semantic and syntactic cues to aid them in the use of graphic information. She concluded that teachers should provide strategies which allow beginning readers to use the language competence which they have acquired already.

Page (1970) examined the miscues generated by three readers who read ten basal reader selections which ranged in difficulty from the pre-primer to the sixth grade. He con-

cluded that the syntactic and semantic cue systems appear to be the most powerful of the three systems since both are dependent upon the reader's language.

Menosky (1971) was concerned with the quality of miscues produced by low, average, and high readers in the beginning of a selection as compared with those produced later in a selection. She analyzed the miscues of eighteen students from grades two, four, six, and eight, and found that the first quarter of the story was a valid measure for determining the quality of miscues made by average and high readers. However, the quality of miscues improved for the low readers as they progressed through the selection. She concluded that the low reader is benefited by the added context of the story.

Gutknecht (1972) was concerned with how perceptually handicapped children who were labeled learning disabled used graphophonic, syntactic, and semantic information in the reading process. He analyzed the miscues generated by five children from an upper elementary learning disabled class and concluded that there appears to be only a slight difference between the oral reading of perceptually handicapped children and children without perceptual problems. The main difference was in the higher percentage of unsuccessful correction attempts which indicated their dependence on the graphophonic cue system.

Watson (1973b) used the Reading Miscue Inventory to

analyze the miscues made by twenty-seven fifth grade students prior to and after a four-month exposure to a saturated paperback book program. The reading strategies of low, average, and high readers were analyzed and compared. Watson concluded that all readers tended to make their reading sound more like language after the four-month exposure to paperback books. They made significant gains in their use of syntax and semantics as well as in no loss of comprehension.

IMPLICATIONS OF MISCUE RESEARCH FOR THE PRESENT STUDY

The study done by Kenneth Goodman (1965) supported the assumption that students who have difficulty in learning to read by using isolated units of language could improve their reading if provided with the whole language. Yetta Goodman's study (1967) supported the idea that children already are endowed with language competence. If given the opportunity, they will rely on the semantic and syntactic cue systems to help them process graphophonic information as they learn to read. Page's study (1970) also points out the importance of the relationship between the use of the child's language competence and his use of the semantic and syntactic cue systems while reading. The results of Menosky's study (1971) emphasize the importance of providing the whole language for the low reader. Gutknecht's finding (1972)

that learning disabled children are more dependent on the graphophonic cue system of their language is significant since some of the subjects in this study had been labeled learning disabled. Watson's conclusions (1973b) highlight the value of learning to read by reading.

SUMMARY

The literature cited in this chapter suggests that the child approaches the task of learning to read with a well developed natural language competence. The child constructed the rules of his language without formal teaching and did so within the total context of language. As the child attempts to learn to read, he does so as a creative user of language who understands much more than he can speak and who can produce meaningful sentences which he has never heard before. He has learned through hypothesis-testing to use spoken language and thought to aid him in making sense of the world around him. It is assumed that he can make sense of written language in the same way.

The research cited supports the theory that a whole language environment is necessary for the child to develop reading proficiency. Using written language in its total context allows the child to use his natural language competence. The extent to which the reader's language and thought interact with that of the author has a direct affect on the

number of ideas communicated and consequently on the degree of reading proficiency attained. This interaction can be facilitated and accelerated by a teaching method which involves the child in the whole language thereby allowing the interdependent use of the semantic, syntactic, and graphophonic cue systems, the employment of natural language competence, and the application of individual experience and knowledge.

Assisted reading provides for the presentation of stories within the full context of natural language. It causes the child to realize, through the application of questioning strategies at various instructional stages, that written language is an extension of his natural spoken language and that his natural language competence and his ability to think and apply what he knows can help him in learning to read.

Chapter III

DESIGN OF THE STUDY

The major purpose of this study was to determine if seven high school students with a history of reading problems would demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems after involvement in language through a whole language approach. Each of the seven students who participated in the study was administered the Reading Miscue Inventory (RMI) (Y. Goodman and Burke, 1972) as a pretest and post-test measure in an effort to determine the effects of the treatment sessions.

The group was divided into two sections with four students in one section and three in the other. The placement of the students in these two sections was determined by each one's class schedule. Six of the students read from paperback books, while one read from content material. The number of fifty-five minute sessions attended by each subject varied from thirty-three to sixty-three. This was due to absences and variations in individual dates of entry into the research study.

Subject and Setting

The subjects were seven male students who attended

a small rural high school in Southwestern Virginia. They were assigned to the research group on the basis of need as indicated by previous achievement test scores and a history of reading problems. Three of the students were in the eighth grade; two of these three were in a regular class, while one was assigned to an Educable Mentally Retarded class. Two were in regular ninth grade classes, and two were in regular twelfth grade classes.

Treatment

Assisted reading was the treatment used in this study, and according to Hoskisson (1974, 1975, a,b), there are three main instructional stages in the assisted reading process:

Stage I: The teacher reads a phrase or sentence, and the child repeats what has been read.

Stage II: The teacher reads all of the words except those the child shows evidence of knowing.

Stage III: The child reads, and the teacher fills in only when the child needs help.

Implementation of Assisted Reading

Taping procedures and the particular adaptation of the questioning strategies utilized in this study were developed during a pilot study conducted by the researcher with fourth grade students (Miller and Hoskisson, 1977). These procedures were developed to fit the needs of each

student at each instructional stage of the assisted reading process. The instructional stage of each student was determined by means of a cloze procedure using a story with highly predictable language. The following initial directions were given to each student:

This is a story which we will read together. I will read most of it, but I would like you to help me with certain words. I would like for you to follow the words as I read and when I stop at a certain word, I would like you to say it if you can. If you know the word, say it; if you do not know the word, tell me that you do not know it, and I will read it.

Clinical judgment was exercised to determine the instructional stage of each student based on the stages as defined by Hoskisson (1975b).

Stage One Taping Procedure. Those students who were functioning at the stage one instructional level were given the following directions:

Now that you have chosen a story, it will be tape recorded so that you will have help in learning to read. First a phrase or sentence will be read and taped, and then a pause will be left so that

you have time to repeat silently what has been read. As each phrase or sentence is read and taped, you must follow the words with your eyes, and you must also point to the words. Remember that during the pause on the tape you must repeat the exact words that have been read. After your story is taped, you must use a headset with the tape recorder and listen to the story until you believe you have learned most of the words. When you feel that you do know most of the words, you will arrange to read parts of your story to me. After you have shown that you have learned most of the words, you will be allowed to choose another story.

As the students in stage one recognized more and more words, and as reading became easier for them, they were considered to be moving into stage two based on clinical judgment. The story was then taped without a pause after each phrase or sentence.

Stage Two Taping Procedures. As the students moved from stage one to stage two of assisted reading they were given the following directions:

Now that you have learned so many words and read-

ing is becoming easier for you, you will read without a pause after each sentence. You will read along with the tape until you have learned most of the words. If the reading speed is too fast or too slow, please indicate that it is uncomfortable for you. When you believe you know most of the words, you should ask to read parts of the story to me.

Students who began in stage two of assisted reading were given the following directions:

The story you have chosen will be tape recorded so that you can listen to it until you learn most of the words. It is very important to follow the words with your eyes as you listen to and read with the tape. If the reading speed is too fast or too slow, please indicate that it is uncomfortable for you. After you have learned this selection, you will read parts of it aloud to show that you know most of the words.

After the students could read many words independently and indicated they wanted to read a story without having it taped, they were considered to be moving into stage three based on clinical judgment.

Stage Three Procedures. The students were given the

following directions as they approached stage three of assisted reading:

Now that you have demonstrated that you can read many words without the aid of the tape, you will be allowed to select a story to read independently. The beginning of it will be read for you, and you will be asked to make predictions about what you think will happen in the story. If you have difficulty with some of the words and cannot make them make sense within the story, you may ask for assistance. After you read your story, you will be required to retell it in your own words before reading selected parts of it aloud.

Questioning Strategies Used
During the Three Stages
of Assisted Reading

Stage One. There were no specific questioning strategies introduced during this stage. The student was involved in reading by listening to the tapes and looking at the words until he learned to read the story. The student was required to retell the story and read parts of it aloud.

Stage Two. At the beginning of this stage, the students were taught to use a self-questioning strategy to help them increase comprehension. The following questions suggested by Y. Goodman, Burke, and Sherman (1974, p. 17) were used:

1. Does what I am reading sound like language to me?
2. Does what I am reading make sense?
3. If what I am reading does not make sense and does not sound like language, what should I do?

These questions were introduced to the student when he made miscues during the oral rereading of the story. When the questions were first introduced, the student would be reminded to ask himself if what he read sounded like language and if it made sense to him. After the student heard these questions during several sessions, he was then asked why he corrected a certain miscue. He was expected to say that he had corrected a miscue because it did not sound like language or that it did not make sense.

Stage Three. The comprehension questions introduced during stage two were used by the students also in stage three.

The Directed Reading-Thinking Activity (Stauffer, 1975) also was used with the students in this stage. This questioning strategy provided the student with practice in making and confirming predictions. The Directed Reading-Thinking Activity strategy was used in the following manner:

1. The title of the story was read, and the student

was asked

- a. What do you think this story is about?
- b. What in the title makes you think that?

2. The beginning of the story was read and the student was asked

- a. Were your predictions correct?
- b. What in the story makes you think so?

3. The student then was asked

- a. What do you think will happen next?
- b. What makes you think that?

4. The student then was told to read the story to find out if his predictions were correct.

Oral Rereading Procedure

The students at each stage were given the following directions concerning the oral rereading:

After you have decided that you can read most of the words in your story without the aid of the tape, you must first retell what you have read, and then you will be asked to read certain parts orally. During the time you are reading aloud, you will not be interrupted, and you will be given assistance only when you say, "Help me with this word." Your mistakes will not be corrected, and you will not be asked to sound out a word.

Selection of the Reading Material

Six of the students read story material from paperback books, while one student was required by the school to read content material from a text on government. He was required to do this because he was failing in his regular government class. It was hoped that assisted reading would help him learn to read the text well enough to pass the course requirements. The six students who read from paperback books were told

You may choose a selection from any of these paperback books. Some of the books contain stories about sports, cars, and drag racing. You will find also short mystery stories, biographies, and science fiction stories. In addition to the short stories, there are full length books on the same topics. It is important that you enjoy reading the selection you choose. Therefore, if you begin a story or a book and find that it is not interesting, you may choose a new one.

The student who was required to read content material from his government class was told

The reading material that you use in these sessions will be taken from your text on government. Your government teacher will choose the selections for

taping. It is important for you to learn to read this material because you will be tested on it in order to pass the course. Your tests will be prepared for you by your regular teacher.

DATA COLLECTION

Reading Miscue Inventory Procedures

Each student orally read a story from the Reading Miscue Inventory Readings for Taping (Y. Goodman and Burke, 1972) before the initial and after the final assisted reading sessions to provide the data necessary to answer the major question of the study

Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

Previous achievement test scores were used for each student to help determine the level of the pretest story that each one read (see Appendix B for the names of the pretest and post-test stories read by each subject). The guidelines suggested by Y. Goodman and Burke (1972) were used. They suggested that the story for the initial reading should be approximately one grade level above the student's reading level and should be difficult enough so that the student will make some miscues while reading, but not so difficult as to cause the student to give up. The pretest

and post-test stories were of similar difficulty. The story read by each student was tape recorded according to the procedures in the Reading Miscue Inventory. Each student was told before reading the story that he must read the entire story through without help. It was suggested that if he did not know a word that he should attempt to read it, even if he had to guess. He also was informed that after reading the entire story he would be required to retell it in his own words. During the initial retelling, the student was not interrupted; however, after the initial response he was asked questions which served to expand the retelling without providing him additional information.

Student Interviews

Interviews were used to answer the first exploratory question of the study:

Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

An attempt was made to determine if the student's attitude about reading would change during the treatment sessions. These interviews were conducted prior to, near the middle, and at the end of the assisted reading sessions. Although the interviews were not guided by an instrument that would provide quantitative data, the following questions were asked during each interview:

1. How do you feel about reading?

2. Have you gone to the library recently?
3. What did you do there?
4. Did you look at, or read, books or magazines?
5. Do you read the newspaper, magazines, or books at home?

The first interview was not tape recorded because it was the intent of the researcher to put the subjects at ease. The middle and final interviews were tape recorded. Notes were taken by the researcher at the end of each student's first interview.

California Reading
Achievement Test

The reading comprehension section of the 1970 edition of this test was administered as a pretest and post-test in order to provide the data necessary to answer the second exploratory question of the study

Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

Form A, Levels 1, 2, and 3 of this test was used as a pretest measure, and Form B was used as a post-test measure. Level 3, Form B was administered twice at an interval of three weeks since the result of the first test were not consistent with other observable results. The results of both the first and second post-test are

reported in this study. The decision as to which level of the test should be used with each student was based on the researcher's judgment, guided by the student's previous reading comprehension scores from school records. Because of the generally low reading level of the students, the level of the individual reading tests to be administered had to be determined by the approximate reading level of the student rather than his grade level. According to the Technical Report (1974) for the California Reading Achievement Test, Level 1 is appropriate for Grades 1.5 - 2.9; Level 2 is appropriate for Grades 2.0 - 4.9; and Level 3 is appropriate for Grades 4.0 - 6.9. Level 1 of the test was used with one student; Level 2 of the test was used with one student; and Level 3 of the test was used with five students. The procedures for administering and scoring this test were followed exactly as set out in the Examiner's Manual.

School Records

The school records were reviewed by the researcher to obtain previous test data which were used to provide background information for each student's case study.

DATA ANALYSIS

Reading Miscue Inventory Analysis

The first fifty miscues made by the student during

the oral reading of the story were recorded on the worksheet copy of the story. All variations between the expected response and the reader's response were marked according to the standard system of symbols in the Reading Miscue Inventory. After each miscue was recorded, it was entered on the RMI Inventory Coding Sheet (see sample in Appendix C), and each miscue was coded and analyzed according to the procedures of the RMI.

Each miscue was coded using the following nine questions of the RMI:

1. DIALECT. Is a dialect variation involved in the miscue?
2. INTONATION. Is a shift in intonation involved in the miscue?
3. GRAPHIC SIMILARITY. How much does the miscue look like what was expected?
4. SOUND SIMILARITY. How much does the miscue sound like what was expected?
5. GRAMMATICAL FUNCTION. Is the grammatical function of the miscue the same as the grammatical function of the word in the text?
6. CORRECTION. Is the miscue corrected?
7. GRAMMATICAL ACCEPTABILITY. Does the miscue occur in a structure which is grammatically acceptable?
8. SEMANTIC ACCEPTABILITY. Does the miscue occur in a structure which is semantically acceptable?
9. MEANING CHANGE. Does the miscue result in a change of meaning? (Y. Goodman and Burke, 1972, pp. 49-50)

After the miscues were coded for each of the nine questions, Grammatical Relationships Patterns and Comprehen-

sion Patterns were coded, and percentage scores were calculated for each pattern. The Grammatical Relationships Patterns, which are indicative of the reader's concern that his oral reading sounds like the language he speaks, were established on the basis of Question 6 (correction), Question 7 (grammatical acceptability), and Question 9 (meaning change). The Comprehension Patterns, which are indicative of the reader's concern for meaning, were established on the basis of Question 6 (correction), Question 8 (semantic acceptability), and Question 9 (meaning change). Percentage scores also were calculated for the degrees of Sound and Graphic similarity, i.e., Y (high--two parts of the miscue looks and sounds like the text item), P (some--one part of the miscue looks and sound like the text item), N (none--the miscue has no sound or graphic similarity to the text item). Grammatical Function percentage scores also were determined; this category is exhibited on the RMI Reader Profile as part of the Grammatical Relationships category. (See Appendix C for a sample profile.) The data for the Grammatical Functions, the Sound/Graphic Relationships, the Comprehension Patterns, and the Grammatical Relationships Patterns were entered on the profile. A profile for the pre- and post-RMI data was prepared and analyzed for each student. Each reader's use of the language cue systems was then determined according to the inter-relationships of the Sound/Graphic Relationships, Grammatical

Relationships, and Comprehension Patterns as indicated by the graphs on the profile. The pretest and post-test data on the profiles were compared to determine if a change could be noted that might suggest involvement in whole language had affected the reader's use of the cue systems.

Rater reliability for the recording and coding of miscues as well as for determining the Retelling Score was established according to miscue research criteria (Watson, 1973), i.e., two researchers listened to each tape until both could agree on every discernable deviation from the text. A final marked copy of the worksheet was prepared for each subject's RMI.

Student Interview Analysis

Each student's reactions to the questions asked by the researcher at the beginning were compared with his reactions to the same questions posed in the middle and at the end of the study period. The interviews which were recorded were transcribed in order to conduct the comparison. The criteria used to compare the responses were frequency and strength of positive comments.

California Reading Achievement Test Analysis

The pretest and post-test scores on the comprehension section of the California Reading Achievement test were compared by the researcher to determine if there was a

change in terms of increase or decrease in the percentile scores from the pretest to the post-test.

School Records

The information gathered from the school records was entered in each subject's case study and identified as objective information. The names of the tests and the scores appear in the case study exactly as they were found in the school records. The tests were not consistent because of difference in the grade levels and previous schools attended by the seven subjects.

CASE STUDY FORMAT

Each of the seven case studies was organized as follows:

A. Objective Data: Objective data were taken from school records to provide prior reading comprehension test scores and intelligence test scores for each student.

B. Assisted Reading Sessions: This category includes the number of treatment sessions attended by each student, the number of books read, and anecdotal information collected by the researcher during the treatment sessions.

C. Primary Question of the Study: This question is answered through a comparison of the Reading Miscue Inventory Pretest and Post-test Profiles.

D. Exploratory Questions: The exploratory questions

concerning attitude change and standardized test scores are answered in terms of the information gathered from the interviews and from the results on the pre- and post-reading comprehension tests.

Chapter IV

RESULTS OF THE STUDY

The primary purpose of this study was to determine if high school students with reading problems would demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems after involvement in reading by means of a whole language approach. The seven male high school students who participated in this study read orally and retold a reading selection prior to and following the treatment sessions. The Reading Miscue Inventory (RMI) was used to analyze the miscues made by each student during the pre- and post-reading. An RMI profile was prepared for each subject's pre- and post-reading on the basis of the percentage scores derived from the categories used in the RMI. Specifically, the percentage scores found on each pre- and post-profile were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The pre- and post-Retelling Scores also were compared.

The findings of this study are presented first according the group results for the primary and exploratory questions and then according to individual results presented in case study format for each subject. Table IV-1 describes

the assisted reading stages and number of sessions attended by each subject. It also presents intelligence and reading achievement test scores along with the chronological age of each subject at the time of his entrance into the sessions.

A COMPARISON OF THE PRE- AND POST-READING
MISCUE INVENTORY SCORES
FOR THE TOTAL GROUP

Research Question: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

Comprehension Patterns and
Retelling Scores

The pre- and post-comprehension patterns scores in Table IV-2 indicate that all seven subjects increased in the No Loss of comprehension category, six of the seven increased in the Partial Loss category, while all seven made a decrease in the Loss category. The Retelling scores of all seven subjects increased

Grammatical Relationships

The pre- and post-grammatical relationships scores in Table IV-3 indicate that all seven subjects increased in the Strength category, five of seven increased in the Partial Strength category, all seven decreased in the Weakness category, and four of seven increased in the Overcorrection category.

TABLE IV-1

ASSISTED READING STAGES AND NUMBER OF SESSIONS,
TEST SCORES, AND CHRONOLOGICAL AGE

SUBJECT	STAGES			NUMBER OF SESSIONS	INCLUSIVE DATES OF SESSIONS	TOTAL NUMBER OF SESSIONS	IQ	SORT ¹		AGE
	I	II	III					PRE	POST	
A	X			7	11/76--12/76	54	82/111	1.9	2.5	19-1
		X		47	12/76-- 4/77					
B		X		40	11/76-- 4/77	40	77/103	3.9	4.2	18-8
C		X		27	10/76-- 2/77	60	90	4.6	6.8	15-6
			X	33	2/77-- 4/77					
D		X		11	10/76--11/76	57	94	3.4	5.3	14-5
			X	46	11/76-- 4/77					
E		X		39	10/76-- 2/77	63	106	3.9	4.5	14-2
			X	24	3/77-- 4/77					
F		X		37	10/76-- 3/77	59	101	3.6	5.2	13-10
			X	22	3/77-- 4/77					
G	X			7	12/76--12/76	31	58/57	2.1	3.0	13-8
		X		24	1/77-- 4/77					

¹SORT = Slosson Oral Reading Test

TABLE IV-2

COMPREHENSION PATTERN AND RETELLING SCORES:
PRE- AND POST-RMI PERCENTAGES

SUBJECT	COMPREHENSION PATTERN SCORES						RETELLING (Points)	
	NO LOSS OF COMP.		PARTIAL LOSS OF COMPREHENSION		LOSS OF COMP.			
	PRE	POST	PRE	POST	PRE	POST	PRE	POST
A	4	82	20	12	76	6	27	85
B	12	24	8	24	80	52	10	56
C	20	76	6	10	74	14	41	82
D	12	50	18	32	70	18	29	69
E	26	72	8	10	66	18	32	90
F	24	50	2	32	74	16	45	76
G	28	56	8	14	64	30	24	57

Grammatical Function

The pre- and post-grammatical function scores in Table IV-3 indicate that five of seven subjects made an increase in substituting words with the Same grammatical function as the text item, five of seven decreased in substituting words with an Indeterminate grammatical function, and five of seven decreased in substituting a word with a Different grammatical function than the text item.

Sound Relationships

The pre- and post-sound similarity scores in Table IV-4 indicate that four of seven subjects increased in producing substitutions with a High degree of sound similarity to the text item; five of seven decreased in producing substitutions with Some degree of sound similarity to the text item, and three of seven decreased in producing substitutions with No sound similarity to the text item.

Graphic Relationships

The pre- and post-graphic similarity scores in Table IV-4 indicate that three of seven subjects increased in producing substitutions with High graphic similarity to the text item, while three made a decrease and one remained the same. The Some graphic similarity scores indicate that one of seven subjects made an increase in substitutions with Some graphic similarity to the text item while four made a de-

TABLE IV-3

GRAMMATICAL RELATIONSHIPS:
PRE- AND POST-RMI PERCENTAGES

SUBJECT	FUNCTION						RELATIONSHIPS							
	Y		P		N		STRENGTH		PARTIAL STRENGTH		WEAKNESS		OVER-CORRECTION	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
A	70	74	0	0	30	26	10	74	0	14	90	8	0	4
B	68	62	1	0	30	38	6	22	0	8	94	70	0	0
C	49	74	7	0	44	26	20	74	0	2	80	20	0	4
D	65	83	3	0	32	17	10	62	6	6	82	32	2	0
E	78	76	2	0	20	24	26	62	2	0	72	34	0	4
F	44	74	0	0	56	26	30	48	0	2	70	44	0	6
G	58	72	7	0	35	28	18	42	0	6	78	50	4	2

TABLE IV-4

SOUND AND GRAPHIC SIMILARITY:
PRE- AND POST-RMI PERCENTAGES

SUBJECT	SOUND SIMILARITY						GRAPHIC SIMILARITY					
	Y/HIGH		P/SOME		N/NONE		Y/HIGH		P/SOME		N/NONE	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
A	29	26	33	41	38	33	41	38	41	41	18	21
B	35	36	35	33	29	31	52	41	29	38	19	21
C	42	38	33	41	25	21	40	53	47	29	13	18
D	32	43	54	35	14	22	65	65	32	17	3	17
E	38	63	29	8	33	29	51	63	27	21	22	16
F	20	34	46	32	34	34	56	50	24	24	20	26
G	29	24	65	60	6	15	26	41	58	39	16	19

crease and two remained the same. Six of seven subjects increased in making substitutions with no graphic similarity to the text item while one made a decrease.

RMI Data Summary

The pre- and post-RMI data indicate that the total group

1. produced more totally semantically acceptable structures within the whole text on the post-RMI as evidenced by an increase in the No Loss of meaning score.

2. produced more structures which were both syntactically and semantically acceptable with respect to the total context of the story as evidenced by an increase in the post-RMI grammatical relationships Strength score.

3. increased its Retelling Scores from the pre- to post-RMI.

Exploratory Questions

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

Prior to the treatment sessions, not one of the students indicated that he liked to read. The most positive comment was made by the nineteen-year-old who said he wanted to learn to read so he could graduate from high school. A few of the students said they went to the library to look at magazines, but none of them indicated that he went there to read or to check out books. A few indicated that they

read the sports section or the comics in the newspaper at home. During the taped interview near the middle of the treatment sessions, not one of the students indicated that he disliked reading. In addition, the majority of the group said they went to the library to look at or to read magazines. They also read the comics or the sports section of the newspaper as well as magazines at home.

After the treatment sessions, all of the subjects indicated that they liked to read more than they did before the treatment sessions were begun. All of them indicated that they read magazines, books, or the newspaper, either at home or at the library in school. They all made positive comments about the success they had during the treatment sessions, and they all said they would recommend the treatment to a friend with a reading problem.

Questions 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

Table IV-5 displays the total group's pretest and post-test results for the comprehension section of the California Reading Achievement Test, 1970 edition. Subject A's scores increased from the first percentile to the fifty-fifth percentile on Level 1 of the test. Subject B's scores increased from the tenth percentile to the twenty-ninth percentile on Level 2 of the test. Subject C was the

TABLE IV-5

CALIFORNIA READING ACHIEVEMENT TEST
 NATIONAL PERCENTILE COMPREHENSION
 SCORES: PRETEST AND POST-TEST

LEVEL	SUBJECT	DATE	PRETEST FORM A PERCENTILE SCORE	DATE	POST-TEST FORM B PERCENTILE SCORE	DATE	POST-TEST FORM B PERCENTILE SCORE
1	A	11/76	1	4/77	55		
2	G	10/76	10	4/77	29		
3	B	11/76	24	4/77	8	5/77	27
	C	10/76	42	4/77	60	5/77	63
	D	10/76	58	4/77	49	5/77	49
	E	10/76	50	4/77	34	5/77	55
	F	10/76	46	4/77	38	5/77	49

only one of the five subjects who were administered Level 3 of the post-test that showed an improvement on the first of the two post-tests; his score increased from the forty-second percentile to the sixtieth percentile on the post-test. Subjects B, D, E, and F showed a decrease in their percentile scores from the pretest to the first post-test.

The second post-test scores of Subjects B, C, E, and F increased, while Subject D's remained the same. Subject D's post-test scores were both at the forty-ninth percentile and both reflect a decrease from the pretest to post-test.

CASE A

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 19-1¹

Grade: 12

School Test Data:

TEST ²	DATE	SCORE
WISC	4/72.	VISQ: 82; PIQ: 111
WRAT (Reading)	4/72.	1.7
PIAT (Reading Comprehension)	10/76.	2.2
PIAT (Reading Comprehension)	5/77.	2.8
SORT	11/76.	1.9
SORT	4/77.	2.5

¹11/76

²WISC = Wechsler Intelligence Scale for Children

WRAT = Wide Range Achievement Test

PIAT = Peabody Individual Achievement Test

SORT = Slosson Oral Reading Test

B. ASSISTED READING SESSIONS:

Subject A attended fifty-four sessions from November until April. During that time he read a total of ten stories and completed one book. He was in instructional stage one of assisted reading for the first seven sessions, and at the time of the post-test data collection he was reading in instructional stage two.

During the fifty-fourth session, Subject A participated in a taped interview with the researcher. During this interview he said that he found the reading instruction in the treatment sessions to be different from his other reading instruction. He said that now, in addition to using sounds, "I can just use what comes natural, and it usually works out." When asked what "comes natural" meant, he said, "I don't know. I just. . .I don't know. . .it just. . . comes natural. . .I reckon."

C. A COMPARISON OF SUBJECT A'S PRE-
AND POST-READING MISCUE INVENTORY
SCORES ON THE RMI READER PROFILE

Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject A's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject A read the story "A Day at Home" for the pre-RMI and "The Line Down the Middle of the Room" for the post-RMI.

Comprehension Patterns

The pre- and post-comprehension patterns scores in Figure IV-1 indicate that most of the miscues on the pre-RMI resulted in a Loss of meaning, while most of the miscues on

the post-RMI resulted in a No Loss of meaning. This is evidenced by an increase in the No Loss of meaning score from four percent on the pre-RMI to 82 percent on the post-RMI. The Loss of meaning score decreased from 76 percent on the pre-RMI to six percent on the post-RMI. The Partial Loss of meaning score decreased from 20 percent on the pre-RMI to 12 percent on the post-RMI. The Retelling Score increased from 27 points on the pre-RMI to 85 points on the post-RMI.

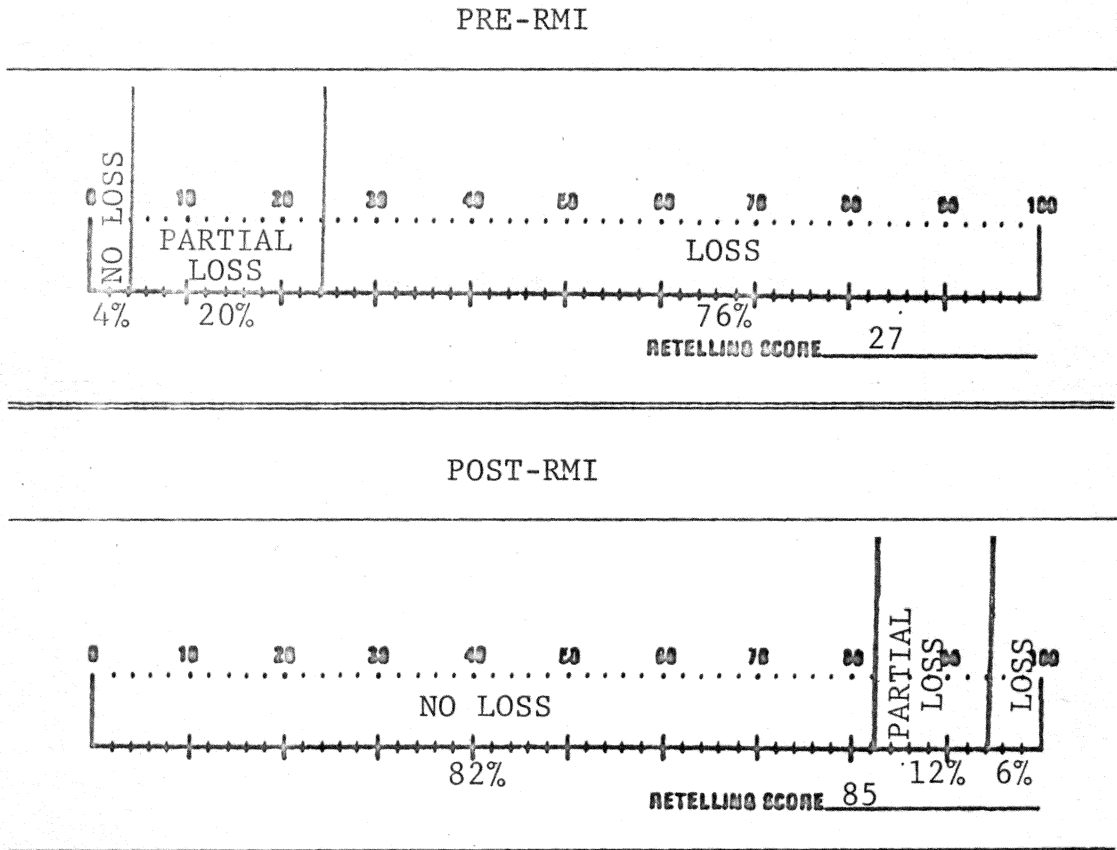


FIGURE IV-1

COMPREHENSION PATTERNS--
SUBJECT A

Grammatical Relationships

The pre- and post-grammatical relationships graphs in Figure IV-2 indicate that the Weakness score decreased from 90 percent on the pre-RMI to eight percent on the post-RMI, while the Strength score increased from 10 percent on the pre-RMI to 74 percent on the post-RMI. The Partial Strength score increased to 14 percent, and the Overcorrection score increased to four percent.

PRE-RMI (Percent)				POST-RMI (Percent)			
Relationships				Relationships			
Strength	Partial Strength	Weakness	Overcorrection	Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100	100	100	100	100
90	90	90	90	90	90	90	90
80	80	80	80	80	80	80	80
70	70	70	70	70	70	70	70
60	60	60	60	60	60	60	60
50	50	50	50	50	50	50	50
40	40	40	40	40	40	40	40
30	30	30	30	30	30	30	30
20	20	20	20	20	20	20	20
10	10	10	10	10	10	10	10
10	0	90	0	74	14	8	4

FIGURE IV-2

GRAMMATICAL RELATIONSHIPS-- SUBJECT A

Grammatical Function

The pre- and post-grammatical function graphs in Figure IV-3 indicate that substitutions with the Identical grammatical function as the text item increased from 70 percent on the pre-RMI to 74 percent on the post-RMI. Sub-

stitutions with a different grammatical function from the text items decreased from 30 percent to 26 percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
70	0	30	74	0	26

FIGURE IV-3

GRAMMATICAL FUNCTION--
SUBJECT A

Sound Relationships

The sound relationships graphs in Figure IV-4 indicate that there was a decrease in the High sound similarity scores and an increase in the Some sound similarity scores from the pre- to the post-RMI. When the High sound similarity and Some sound similarity scores are combined, there is an increase from 62 percent dependence on phonemic cues on the pre-RMI to 67 percent dependence on the post-RMI. Substitutions with no sound similarity score decreased from the pre-RMI to the post-RMI.

PRE-RMI (Percent)			POST-RMI (Percent)		
Sound			Sound		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
29	33	38	26	41	33

FIGURE IV-4

SOUND RELATIONSHIPS--
SUBJECT A

Graphic Relationships

The graphic relationships graphs in Figure IV-5 indicate a decrease in substitutions with High graphic similarity from the pre- to post-RMI. Substitutions with Some graphic similarity remained the same, while substitutions with no graphic similarity increased from the pre- to post-RMI. When the High graphic similarity and Some graphic similarity scores are combined, there is a decrease from an 82 percent dependence on graphic cues on the pre-RMI to a 79 percent dependence on the post-RMI.

RMI Data Summary

The pre- and post-data indicate that Subject A

1. produced more totally semantically acceptable struc-

PRE-RMI (Percent)			POST-RMI (Percent)		
Graphic			Graphic		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
41	41	18	38	41	21

FIGURE IV-5
GRAPHIC RELATIONSHIPS--
SUBJECT A

tures within the whole text on the post-RMI as evidenced by the increase in the No Loss of meaning score.

2. produced fewer structures on the post-RMI which were not semantically acceptable as evidenced in a decrease in the Loss of meaning score.

3. produced more structures on the post-RMI which were both syntactically and semantically acceptable with respect to the total context of the story as evidenced by an increase in the grammatical relationships Strength score.

4. produced more substitutions on the post-RMI that retained the same grammatical function as the text item as evidenced by an increase in the Identical grammatical function score.

5. did not appreciably change his reliance on phonemic

and graphic cues from the pre- to post-RMI as evidenced by minimal change in the sound/graphic relationships scores.

6. increased his Retelling Score.

D. EXPLORATORY QUESTIONS:

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

When Subject A first was interviewed in November, 1976, he was asked why learning to read had been so difficult and his immediate response was, "I had hateful teachers," and "They talked like they did not want me." During this interview, he indicated that he now wanted to learn to read so he could graduate from high school. He became very discouraged with the taping procedure during the twenty-second session because he believed that he was not learning to read quickly enough. For the first time since the beginning session, he became angry and informed the researcher that reading was "sounding out" and that he was not being taught sounds to help him learn to read. He explained that his other teachers had taught him sounds. After twenty-four sessions he said that learning to read "makes me feel a little bit better." After fifty-four sessions he said that the reading sessions had "helped a lot, and it [reading] was fun."

Before the assisted reading sessions Subject A said

that he did not go to the library, but he looked at the comics in the newspaper at home. After twenty-four sessions he said that he went to the library "every now and then to read magazines." He also said that he read the funnies in the Sunday paper. After fifty-four sessions he said that he went to the library to look at magazines and that he read "small books and stuff at home."

During an interview with Subject A's mother (see Appendix D) she indicated that not only had his attitude toward reading improved during the treatment sessions, but also his attitude toward school had improved.

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 1, was used with Subject A. Form A was administered as the pretest and Form B was used as the post-test. When given the pretest, Subject A did not have the confidence to read the first paragraph. He was encouraged by the researcher to try only the first sentence if he believed the entire paragraph to be too difficult. He attempted the first sentence and then gave up. He answered the first question on the test and refused to continue. His scores (in percentiles) were

Pretest	- Level 1, Form A:	1
Post-test	- Level 1, Form B:	51

CASE B

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 18-8¹

Grade: 12

School Test Data:

TEST ²	DATE	SCORE
WAIS	4/75 . . .	.VIQ: 77; PIQ: 103
PIAT (Reading Comprehension)	11/76 . . . . .	.4.2
PIAT (Reading Comprehension)	5/77 . . . . .	.5.3
SORT	11/76 . . . . .	.3.9
SORT	4/77 . . . . .	.4.2

¹11/76

²WAIS = Wechsler Adult Intelligence Scale
PIAT = Peabody Individual Achievement Test
SORT = Slosson Oral Reading Test

Subject B was placed in an Educable Mentally Retarded (EMR) class in the seventh grade and remained there through the tenth grade. He was placed in regular classes at the beginning of the eleventh grade.

B. ASSISTED READING SESSIONS:

Subject B attended forty sessions from November until April. He read content material from a government text and

was in instructional stage two of assisted reading for the entire forty sessions. During a taped interview he said that learning government by listening to the tapes and reading the text was "a whole lot easier than it was in the regular class." He learned to read the material that was taped for him and was able to pass his government tests.

C. A COMPARISON OF SUBJECT B'S PRE-
AND POST-READING MISCUE INVENTORY
SCORES ON THE RMI READER PROFILE

Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject B's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject B read the story "Why the Parrot Repeats Man's Words" for the pre-RMI and "Zoo Doctor" for the post-RMI.

Comprehension Patterns

The pre- and post-comprehension patterns scores in Figure IV-6 indicate that 80 percent of the miscues on the pre-RMI resulted in a Loss of meaning, while the post-RMI comprehension pattern scores indicate a 52 percent Loss of meaning. The pre-RMI No Loss of meaning score of 12 percent increased to 24 percent on the post-RMI. Subject B's pre-

Retelling Score of 10 points increased to 56 points on the post-RMI.

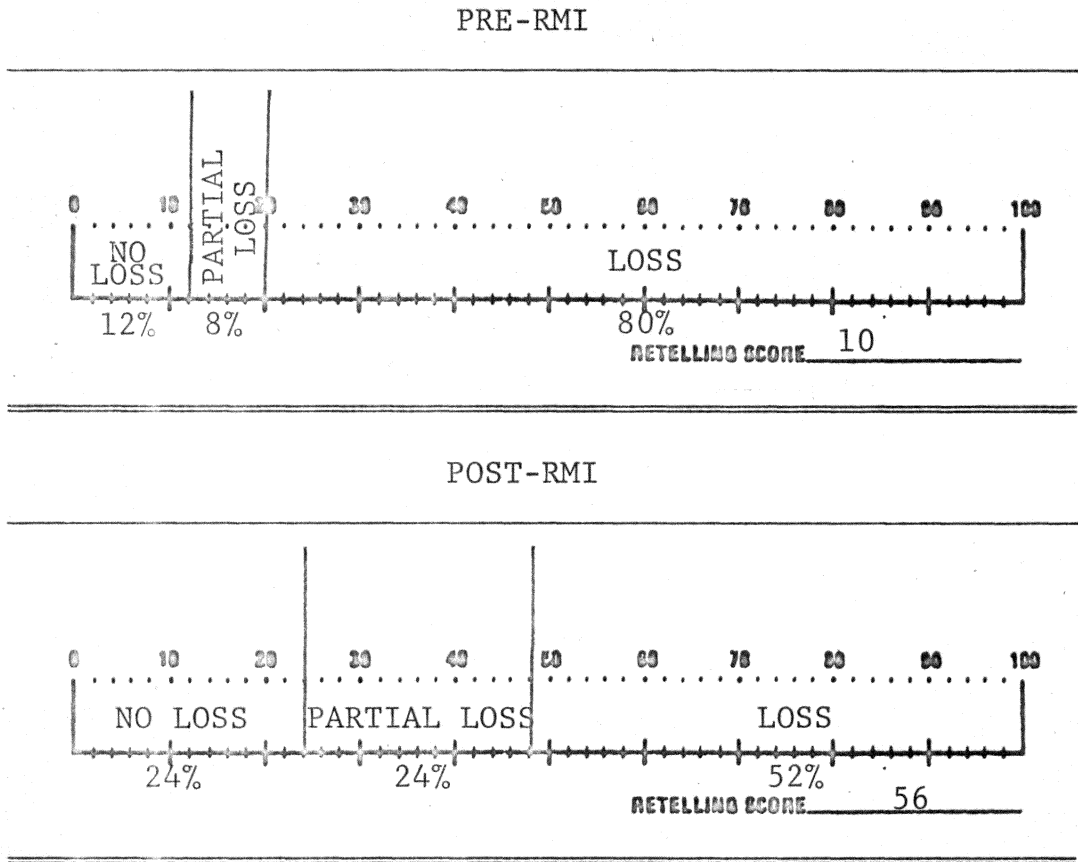


FIGURE IV-6

COMPREHENSION PATTERN--
SUBJECT B

Grammatical Relationships

The pre- and post-grammatical relationships graphs in Figure IV-7 indicate the Weakness score decreased from 94 percent to 70 percent, while the Strength score increased from six percent to 22 percent. The Partial Strength score increased from zero percent to eight percent, and the over-correction score was zero percent on both the pre- and post-RMI.

PRE-RMI
(Percent)

Relationships			
Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
6	0	94	0

POST-RMI
(Percent)

Relationships			
Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
22	8	70	0

FIGURE IV-7

GRAMMATICAL RELATIONSHIPS--
SUBJECT BGrammatical Function

The pre- and post-grammatical relationships Function graphs in Figure IV-8 indicate that substitutions with the Identical grammatical function as the text item decreased from 68 percent to 62 percent. Substitutions with a Different grammatical function from the text item increased from 30 percent to 38 percent.

Sound Relationships

The sound relationships graphs in Figure IV-9 indicate that there was a slight variation in both the High sound similarity scores and the Some sound similarity scores from the pre- to post-RMI. When the High sound similarity and Some sound similarity scores are combined, there is a

minimal decrease of dependence on phonemic cues from the pre- to post-RMI. Substitutions with no sound similarity increased slightly from the pre- to post-RMI.

PRE-RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
68	1	30	62	0	38

FIGURE IV-8

GRAMMATICAL FUNCTION--
SUBJECT B

Graphic Relationships

The graphic relationships graphs in Figure IV-10 indicate a decrease in the High graphic similarity score, while the Some graphic similarity score shows an increase from the pre- to post-RMI. When the scores for High and Some graphic similarity are combined, 81 percent of the substitutions result in close graphic similarity to the text items on the pre-RMI, while 79 percent result in close graphic similarity to the text items on the post-RMI. Substitutions with no graphic similarity to the text item increased two percent.

PRE-RMI
(Percent)

Sound		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
35	35	29

POST-RMI
(Percent)

Sound		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
36	33	31

FIGURE IV-9

SOUND RELATIONSHIPS--
SUBJECT B

PRE-RMI
(Percent)

Graphic		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
52	29	19

POST-RMI
(Percent)

Graphic		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
41	38	21

FIGURE IV-10

GRAPHIC RELATIONSHIPS--
SUBJECT B

RMI Data Summary

The pre- and post-data indicate that Subject B

1. produced more totally semantically acceptable structures within the whole text on the post-RMI as evidenced by the increase in the No Loss of meaning score.
2. produced fewer structures which were not semantically acceptable as evidenced in a decrease in the Loss of meaning score.
3. produced more structures which were both syntactically and semantically acceptable with respect to the total context of the story as evidenced by an increase in the grammatical relationships Strength score.
4. did not appreciably change his reliance on phonemic and graphic cues from the pre- to post-RMI as evidenced by minimal change in the sound/graphic relationship scores.
5. increased his Retelling Score.

D. EXPLORATORY QUESTIONS

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

Before the assisted reading sessions Subject B said that he did not like to read because he could not understand many words. After attending nineteen sessions, he said that he felt a "whole lot" different about reading because he could read more than at the beginning of the sessions. After forty sessions he said that he thought that reading

was a "good thing" because "if you can't read you can't get much of no place."

At the beginning of the sessions, Subject B indicated that he did not go to the library to look at, or read, books and magazines. However, he said that he did read the sports section of the newspaper as well as magazines at home. After nineteen sessions he said that he went to the library once in a while to read magazines, and sometimes checked out books about "race cars and stuff." He also said that he read comics at home as well as the sports section of the newspaper. After forty sessions he indicated that he went to the library to look at "papers, magazines, and books." He said that he read about "big game hunting, fishing, and stuff like that." He also said that he read the sports section of the newspaper at home every day.

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 3, was used with Subject B. Form A was administered as the pretest and Form B was used as the post-test. His scores (in percentiles) were

Pretest	- Level 3, Form A:	24
Post-test I	- Level 3, Form B:	8
Post-test II	- Level 3, Form B:	27

CASE C

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 15-6¹

Grade: 12

School Test Data:

TEST ²	DATE	SCORE
SIT.	9/76.	90
PIAT (Reading Comprehension)	5/75.	3.9
PIAT (Reading Comprehension)	5/76.	3.9
PIAT (Reading Comprehension)	5/77.	9.8
SORT	9/76.	4.6
SORT	4/77.	6.8

¹9/76

²SIT = Slosson Intelligence Test
PIAT = Peabody Individual Achievement Test
SORT = Slosson Oral Reading Test

B. ASSISTED READING SESSIONS:

Subject C attended sixty sessions from October until April and read a total of eleven short stories and five paperback books. He began in instructional stage two of assisted reading and progressed to instructional level three by the twenty-eighth session. During a taped interview at the end of the treatment sessions he was asked how he

thought he had learned to read so well. His reply was, "By readin'."

C. A COMPARISON OF SUBJECT C'S PRE-
AND POST-READING MISCUE INVENTORY
SCORES ON THE RMI READER PROFILE

Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject C's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject C read "First Kill" for the pre-RMI and "Anita's Gift" for the post-RMI.

Comprehension Patterns

The pre- and post- comprehension patterns scores in Figure IV-11 indicate that 74 percent of the miscues on the pre-RMI resulted in a Loss of meaning, while 14 percent of the miscues on the post-RMI resulted in a Loss of meaning. The pre-RMI No Loss of meaning score of 20 percent increased to 76 percent on the post-RMI. Subject C's pre-Retelling Score was 41 points, while his post-Retelling Score was 82 points.

Grammatical Relationships

The pre- and post-grammatical relationships graphs

in Figure IV-12 indicate that the Weakness score decreased from 80 percent to 20 percent, while the Strength score increased from 20 percent to 74 percent. The Partial Strength increased from zero percent to two percent, and the Overcorrection score increased from zero percent to four percent.

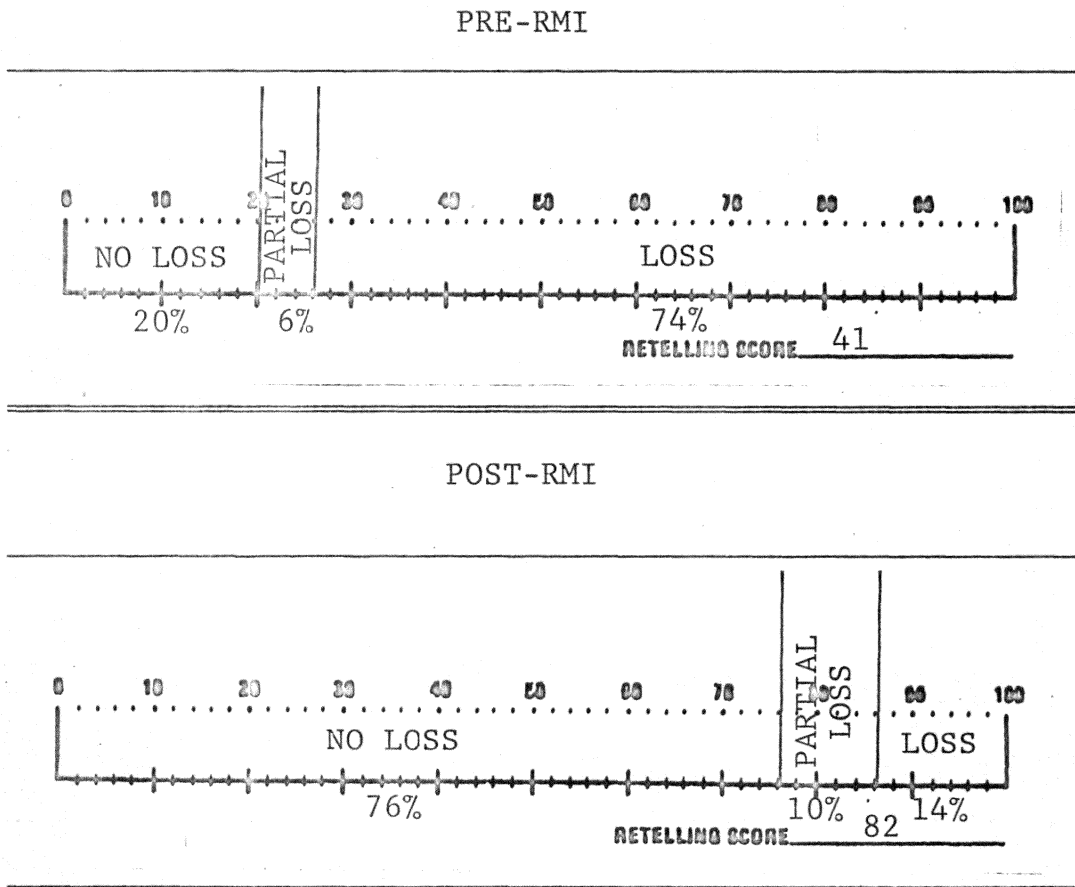


FIGURE IV-11

COMPREHENSION PATTERN--
SUBJECT C

Grammatical Function

The pre- and post-grammatical function graphs in

PRE-RMI
(Percent)

Relationships			
Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
20	0	80	0

POST-RMI
(Percent)

Relationships			
Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
74	2	20	4

FIGURE IV-12

GRAMMATICAL RELATIONSHIPS--
SUBJECT C

Figure IV-13 indicate substitutions with the Identical grammatical functions as the text items increased from 49 percent to 74 percent. Substitutions with a different grammatical function from the text item decreased from 44 percent to 26 percent.

Sound Relationships

The sound relationships graphs in Figure IV-14 indicate that there was a decrease in the High sound similarity scores and an increase in the Some sound similarity scores from the pre- to post-RMI. When the High sound similarity and Some sound similarity scores are combined, there is an increase from 75 percent dependence on phonemic cues on the pre-RMI to 79 percent on the post-RMI. Substi-

tutions with no sound similarity to the text items decreased from 25 percent to 21 percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
49	7	44	74	0	26

FIGURE IV-13

GRAMMATICAL FUNCTION--
SUBJECT C

PRE-RMI (Percent)			POST-RMI (Percent)		
Sound			Sound		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
42	33	25	38	41	21

FIGURE IV-14

SOUND RELATIONSHIPS--
SUBJECT C

Graphic Relationships

The graphic relationships graphs in Figure IV-15 indicate an increase in the High graphic similarity score from the pre- to post-RMI, while the Some graphic similarity score decreased. When the High graphic similarity and Some graphic similarity scores are combined, there is a decrease in reliance on graphic cues from 87 percent on the pre-RMI to 82 percent on the post-RMI. Substitutions with no graphic similarity increased from 13 percent to 18 percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Graphic			Graphic		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	53	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
40	47	13	53	29	18

FIGURE IV-15
GRAPHIC RELATIONSHIPS--
SUBJECT C

RMI Data Summary

The pre- and post-RMI data indicate that Subject C

1. produced more totally semantically acceptable

structures within the whole text on the post-RMI as evidenced by an increase in the No Loss of meaning score.

2. produced more structures which were both syntactically and semantically acceptable in relation to the total context of the story as evidenced by an increase in the post-RMI grammatical relationships Strength score.

3. produced more substitutions that retained the same grammatical function as the text item as evidenced by an increase in the post-RMI Identical grammatical relationships function score.

4. did not appreciably change his reliance on phonemic and graphic cues from the pre- to post-RMI as evidenced by minimal change in the sound/graphic relationship scores.

5. increased his Retelling Scores.

D. EXPLORATORY QUESTIONS

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

Before the beginning of assisted reading, Subject C said that he did not like reading because he "could not read right" and because he was not "able to figure out the words." After twenty-seven sessions he said, "I like to read a little bit better because I can understand the sentences and get most of them [words] right." After sixty sessions, he said that he liked to read "a lot better" than in the beginning

of the sessions. He also said that he would recommend the assisted reading sessions to a friend who had a reading problem because they "had helped" him.

At the beginning of the sessions, Subject C said that he did not go to the library, but that he did read the comics in the Sunday paper. After twenty-seven sessions he said that he had not gone to the library recently, but that he did read the comics in the Sunday paper. After sixty sessions he said that he did not go to the library, but that he read comics and magazines at home. He also took paperbacks from the reading room and read in the evening and on weekends during the last twenty treatment sessions.

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 3, was used with Subject C. Form A was administered as the pretest and Form B was used at the post-test. His scores (in percentiles) were

Pretest	- Level 3, Form A:	42
Post-test I	- Level 3, Form B:	60
Post-test II	- Level 3, Form B:	63

CASE D

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 14-5¹

Grade: 9

School Test Data:

TEST ²	DATE	SCORE
SIT.	9/76.	94
PIAT (Reading Comprehension)	5/75. . . . .	.4.2
PIAT (Reading Comprehension)	5/76. . . . .	.4.1
PIAT (Reading Comprehension)	5/77. . . . .	.4.1
SORT	9/76. . . . .	.3.4
SORT	4/77. . . . .	.5.3

¹9/76

²SIT = Slosson Intelligence Test
PIAT = Peabody Individual Achievement Test
SORT = Slosson Oral Reading Test

B. ASSISTED READING SESSIONS:

Subject D attended fifty-seven sessions and read a total of two short stories and five paperback books from October until April. He began in instructional stage two of assisted reading and progressed to instructional stage three by the twelfth session. During a taped interview with the researcher after the fifty-seventh session, he said that

he could read more words than in the beginning of the year. When asked why he thought he was able to read more, he said, "Because I have been readin' a lot of books, and I have seen different words."

C. A COMPARISON OF SUBJECT D'S PRE-
AND POST-READING MISCUE INVENTORY
SCORES ON THE RMI READER PROFILE

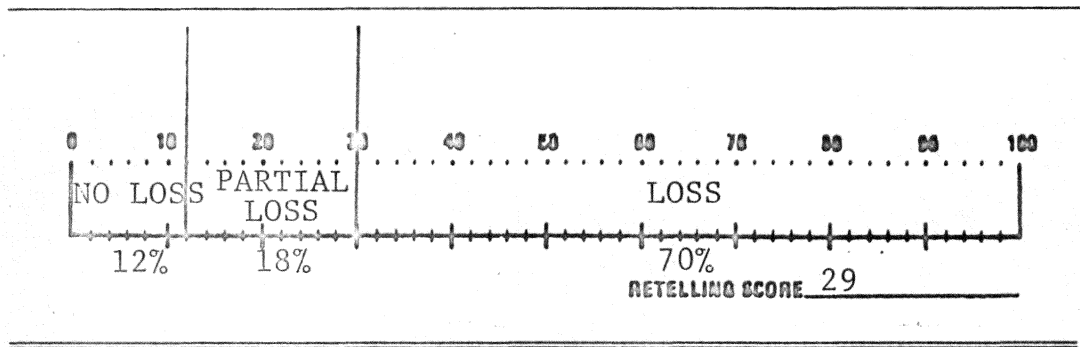
Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject D's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject D read "Why the Parrot Repeats Man's Words" for the pre-RMI and "Zoo Doctor" for the post-RMI.

Comprehension Patterns

The pre- and post-comprehension patterns scores in Figure IV-16 indicate that 70 percent of the miscues on the pre-RMI resulted in a Loss of meaning, while 18 percent of the miscues on the post-RMI resulted in a Loss of meaning. The pre-RMI No Loss of meaning score of 12 percent increased to 50 percent on the post-RMI. The Partial Loss score increased from 18 percent to 32 percent. His Retelling Score increased from 29 to 69 points.

PRE-RMI



POST-RMI

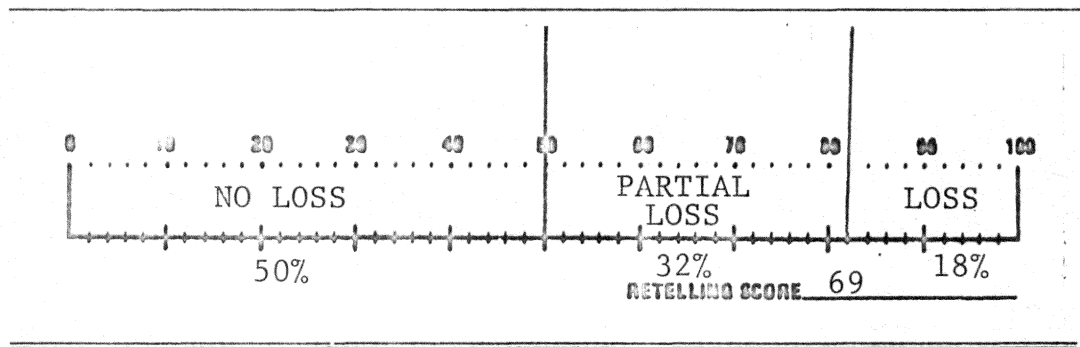


FIGURE IV-16

COMPREHENSION PATTERN--
SUBJECT D

Grammatical Relationships

The pre- and post-grammatical relationships graphs in Figure IV-17 indicate that the Weakness score decreased from 82 percent to 32 percent, while the Strength score increased from 10 percent to 62 percent. The Partial Strength score remained the same at six percent, and the Overcorrection score decreased from two percent to zero percent.

PRE-RMI
(Percent)

Relationships			
Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
10	6	82	2

POST-RMI
(Percent)

Relationships			
Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100
90	90	90	90
80	80	80	80
70	70	70	70
60	60	60	60
50	50	50	50
40	40	40	40
30	30	30	30
20	20	20	20
10	10	10	10
62	6	32	0

FIGURE IV-17

GRAMMATICAL RELATIONSHIPS--
SUBJECT D

Grammatical Function

The pre- and post-grammatical relationships function graphs in Figure IV-18 indicate that substitutions with the Identical grammatical function as the text item increased from 65 percent to 83 percent. Substitutions with a different grammatical function from the text item decreased from 32 percent to 17 percent.

Sound Relationships

The sound relationships graphs in Figure IV-19 indicate that there was an increase in the High sound similarity scores and a decrease in the Some sound similarity scores from the pre- to post-RMI. When the High and Some sound similarity scores are combined there is a decrease

from 86 percent dependence on phonemic cues on the pre-RMI to a 78 percent dependence on the post-RMI. Substitutions with no sound similarity increased from 14 percent to 22 percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
65	3	32	83	0	17

FIGURE IV-18

GRAMMATICAL FUNCTION--
SUBJECT D

Graphic Relationships

The graphic relationships graphs in Figure IV-20 indicate that while substitutions with High graphic similarity to the text item remained at 65 percent for both the pre- and post-RMI, substitutions with Some graphic similarity to the text item decreased from 32 percent to 17 percent. When the High and Some graphic similarity scores are combined, there is a decrease from 97 percent dependence on graphic cues on the pre-RMI to 82 percent on the post-RMI.

Substitutions with no graphic similarity increased from three percent to 17 percent.

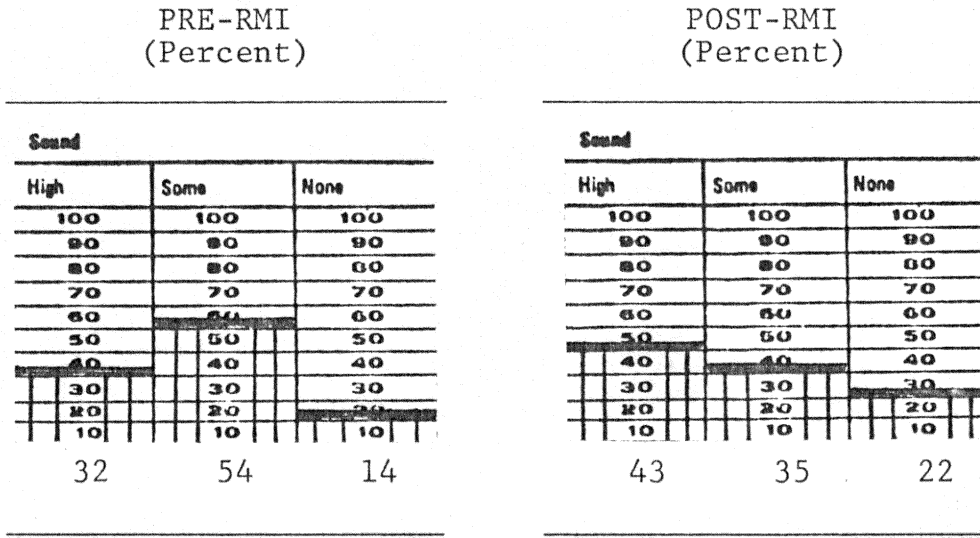


FIGURE IV-19

SOUND RELATIONSHIPS--
SUBJECT D

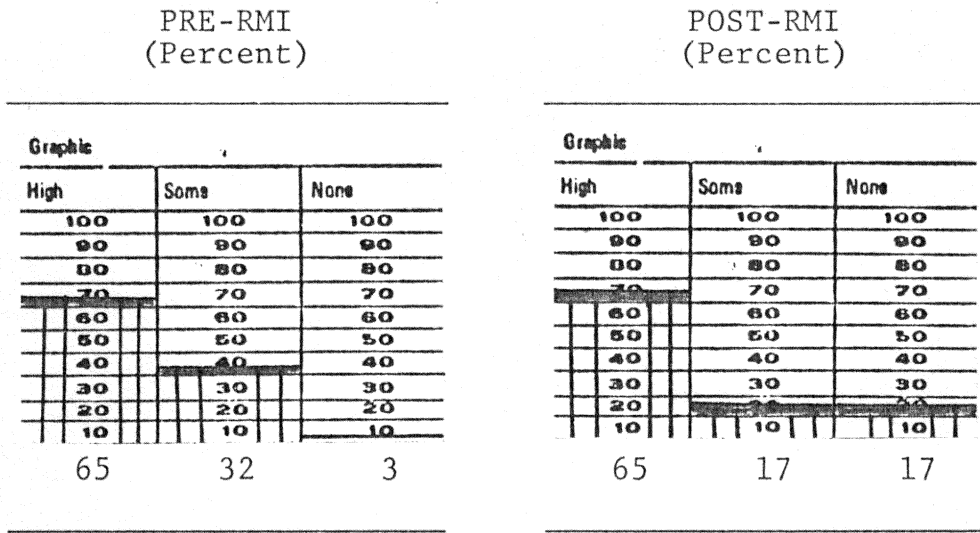


FIGURE IV-20

GRAPHIC RELATIONSHIPS--
SUBJECT D

RMI Data Summary

The pre- and post-RMI data indicate that Subject D

1. produced more semantically acceptable structures within the whole text on the post-RMI as evidenced by an increase in the No Loss of meaning score.

2. produced more structures which were both syntactically and semantically acceptable in relation to the total context of the story as evidenced by an increase in the post-RMI grammatical relationships Strength score.

3. produced more substitutions that retained the same grammatical function as the text item as evidenced by an increase in the post-RMI Identical grammatical relationships function score.

4. decreased his dependence on phonemic and graphic cues as evidenced by increases in both the sound and graphic similarity None scores.

5. increased his Retelling Score.

EXPLORATORY QUESTIONS:

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

During the interview prior to the treatment sessions Subject D said that he felt "awful" about reading and "didn't like it." After the thirtieth session he said that he felt "a little bit" better about reading because he could "read more words." After the final session he said, "I like to

read more now."

Subject D's interviews revealed that he went to the library to read magazines prior to and during the assisted reading sessions. He also read magazines and the sports section of the newspaper at home prior to and during the sessions.

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 3, was used with Subject D. Form A was administered as the pretest and Form B was used as the post-test. His scores (in percentiles) were

Pretest	- Level 3, Form A:	58
Post-test I	- Level 3, Form B:	49
Post-test II	- Level 3, Form B:	49

CASE E

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 14-2¹

Grade: 8

School Test Data:

TEST ²	DATE	SCORE
SIT.	9/76.	106
PIAT (Reading Comprehension)	5/75.	4.1
PIAT (Reading Comprehension)	5/76.	3.4
PIAT (Reading Comprehension)	5/77.	5.3
SORT	9/76.	3.9
SORT	4/77.	4.5

¹9/76

²SIT = Slosson Intelligence Test
 PIAT = Peabody Individual Achievement Test
 SORT = Slosson Oral Reading Test

B. ASSISTED READING SESSIONS:

Subject E attended sixty-three sessions from October until April and read a total of ten short stories and two paperback books. He began in instructional stage two of assisted reading and progressed to instructional stage three by the fortieth session while reading a paperback book. He completed the book by the fifty-first session. During the

fifty-second session he chose a more difficult paperback book than the previous one and requested that the first four chapters be taped for him. At the beginning of the fifty-eighth session he was able to read without the aid of the tape; he completed the remainder of the book by the sixty-third session without the taping procedure.

During an interview with the researcher after the final session, Subject E said the thing he liked most about the reading program was that "It helps you a lot" because "It helps me read."

C. A COMPARISON OF SUBJECT E'S PRE- AND POST-READING MISCUE INVENTORY SCORES ON THE RMI READER PROFILE

Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject E's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject E read "Space Pet" for the pre-RMI and "Name of the Tree" for the post-RMI.

Comprehension Patterns

The pre- and post-comprehension patterns scores in Figure IV-21 indicate that 66 percent of the miscues on the pre-RMI resulted in a Loss of meaning, while 18 percent of

the miscues on the post-RMI resulted in a Loss of meaning. The pre-RMI No Loss of meaning score of 26 percent increased to 72 percent on the post-RMI. The Partial Loss of meaning score increased from eight percent to 10 percent. His pre-Retelling Score of 32 points increased to 90 points on the post-Retelling.

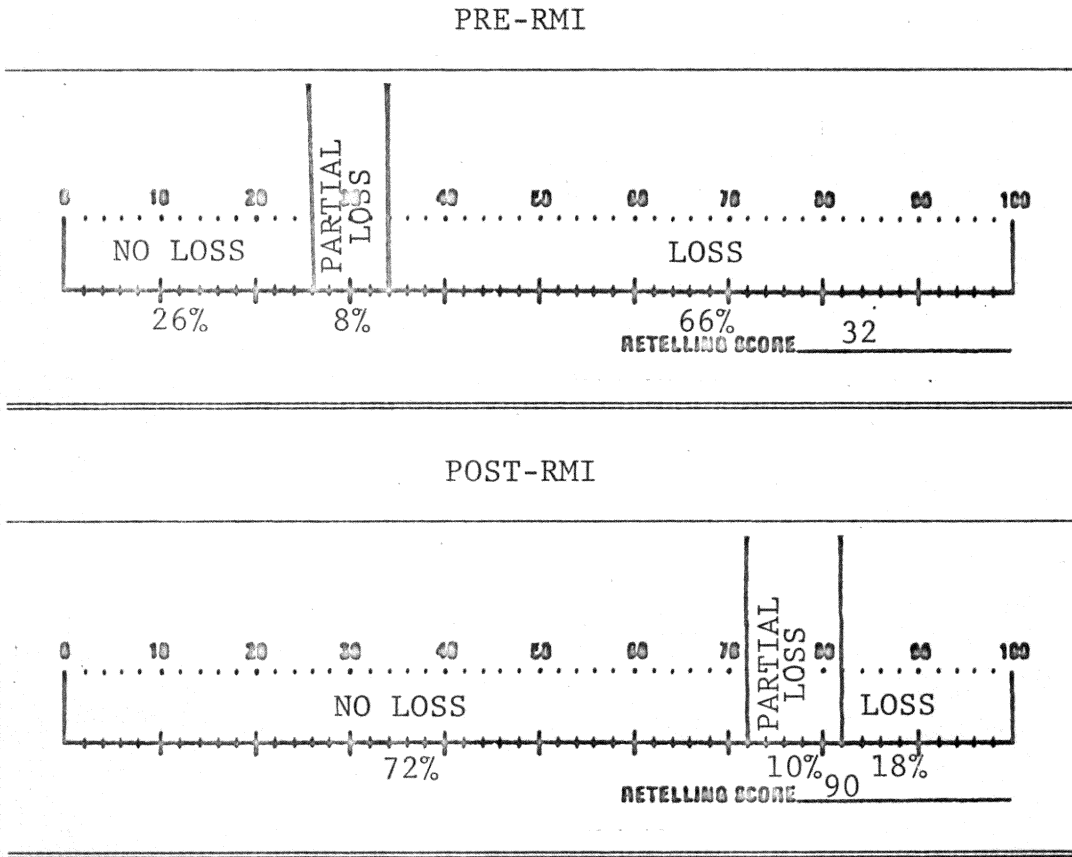


FIGURE IV-21

COMPREHENSION PATTERN--
SUBJECT E

Grammatical Relationships

The pre- and post-grammatical relationships graphs in

Figure IV-22 indicate the Weakness score decreased from 72 percent to 34 percent, while the Strength score increased from 26 percent to 62 percent. The Partial Strength score decreased from two percent to zero percent, and the Overcorrection score increased from zero percent to four percent.

PRE-RMI (Percent)				POST-RMI (Percent)			
Relationships				Relationships			
Strength	Partial Strength	Weakness	Overcorrection	Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100	100	100	100	100
90	90	90	90	90	90	90	90
80	80	80	80	80	80	80	80
70	70	70	70	70	70	70	70
60	60	60	60	60	60	60	60
50	50	50	50	50	50	50	50
40	40	40	40	40	40	40	40
30	30	30	30	30	30	30	30
20	20	20	20	20	20	20	20
10	10	10	10	10	10	10	10
26	2	72	0	62	0	34	4

FIGURE IV-22

GRAMMATICAL RELATIONSHIPS--
SUBJECT E

Grammatical Function

The pre- and post-grammatical relationships function graphs in Figure IV-23 indicate that substitutions with the Identical grammatical function as the text item decreased from 78 percent to 76 percent. Substitutions with a different grammatical function from the text item increased from 20 percent to 24 percent. Substitutions whose function could not be determined decreased from two percent to zero percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
78	2	20	76	0	24

FIGURE IV-23

GRAMMATICAL FUNCTION--
SUBJECT E

Sound Relationships

The sound relationships graphs in Figure IV-24 indicate that there was an increase in the High sound similarity scores and a decrease in the Some sound similarity scores from the pre- to post-RMI scores. When the High and Some sound similarity scores are combined there is an increase from 67 percent dependence on phonemic cues on the pre-RMI to a 71 percent dependence on the post-RMI. Substitutions with no sound similarity decreased from 33 percent to 29 percent.

Graphic Relationships

The graphic relationships graphs in Figure IV-25 indicate that substitutions with High graphic similarity to the text items increased from 51 percent on the pre-RMI

to 63 percent on the post-RMI. Substitutions with Some graphic similarity decreased from 27 percent to 21 percent. When the High and Some graphic similarity scores are combined there is an increase from 78 percent dependence on graphic cues on the pre-RMI to 84 percent dependence on the post-RMI. Substitutions with no graphic similarity to the text item decreased from 22 percent to 16 percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Sound			Sound		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
38	29	33	63	8	29

FIGURE IV-24

SOUND RELATIONSHIPS--
SUBJECT E

RMI Data Summary

The pre- and post-RMI data indicate that Subject E

1. produced more semantically acceptable cues within the whole text on the post-RMI as evidenced by an increase in the No Loss of meaning score.
2. produced more structures which were both syntacti-

PRE-RMI (Percent)			POST-RMI (Percent)		
Graphic			Graphic		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
51	27	22	63	21	16

FIGURE IV-25

GRAPHIC RELATIONSHIPS--
SUBJECT E

cally and semantically acceptable in relation to the total context of the story as evidenced by an increase in the post-RMI grammatical relationships Strength score.

3. produced fewer substitutions that retained the same grammatical function as the text item as evidenced by a decrease in the post-RMI Identical grammatical relationships function score.

4. increased his dependence on phonemic and graphic cues as evidenced by the increases in the High and Some sound and graphic similarity scores.

5. increased his Retelling Score.

D. EXPLORATORY QUESTIONS

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

Before the beginning of the treatment sessions, Subject E said, "Everything about reading is hard." After twenty-eight sessions he said, "I like reading a little bit more" because "I can read more words than I used to." After the sixty-third session he said that he thought his reading had improved because he could read "hard words." He also said, "I read faster now."

At the beginning of the sessions he said that he did not go to the library or read at home. After twenty-eight sessions he said that he went to the library to read magazines, but he did not read at home. After the final session he said that he went to the library to read about fishing; he also began reading the comics in the newspaper at home.

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 3, was used with Subject E. Form A was administered as the pretest, and Form B was used as the post-test. His scores (in percentiles) were

Pretest	- Level 3, Form A:	50
Post-test I	- Level 3, Form B:	34
Post-test II	- Level 3, Form B:	55

CASE F

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 13-10¹

Grade: 8

School Test Data:

TEST ²	DATE	SCORE
SIT.	9/76.	101
PIAT (Reading Comprehension)	5/75.	4.5
PIAT (Reading Comprehension)	5/76.	4.1
PIAT (Reading Comprehension)	5/77.	5.0
SORT	9/76.	3.6
SORT	4/77.	5.2

¹10/76

²SIT = Slosson Intelligence Test
PIAT = Peabody Individual Achievement Test
SORT = Slosson Oral Reading Test

B. ASSISTED READING SESSIONS:

Subject F attended fifty-nine treatment sessions and read a total of four short stories and one paperback book from October until April. He began in instructional stage two of assisted reading and progressed to instructional stage three by the thirty-eighth session. During a taped interview with the researcher after the twenty-eighth session, he said

that he believed his reading had improved "a whole lot" because he could read many more words. After the final session he said that he had learned to "read on" when he found a word he did not know until he could "find out what is happening in the story and then come back and figure it out." He also said the treatment sessions "Helps a lot."

C. A COMPARISON OF SUBJECT F'S PRE-
AND POST-READING MISCUE INVENTORY
SCORES ON THE RMI READER PROFILE

Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject F's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject F read "Zoo Doctor" for the pre-RMI and "Why the Parrot Repeats Man's Words" for the post-RMI.

Comprehension Patterns

The pre- and post-comprehension patterns scores in Figure IV-26 indicate that 74 percent of the miscues on the pre-RMI resulted in a Loss of meaning, while the post-RMI scores indicate a 16 percent Loss of meaning. The pre-RMI No Loss of meaning score of 24 percent increased to 50 percent on the post-RMI, while the Partial Loss of meaning score increased from two percent to 32 percent. The pre-Retelling

Score increased from 45 points to 76 points on the post-RMI.

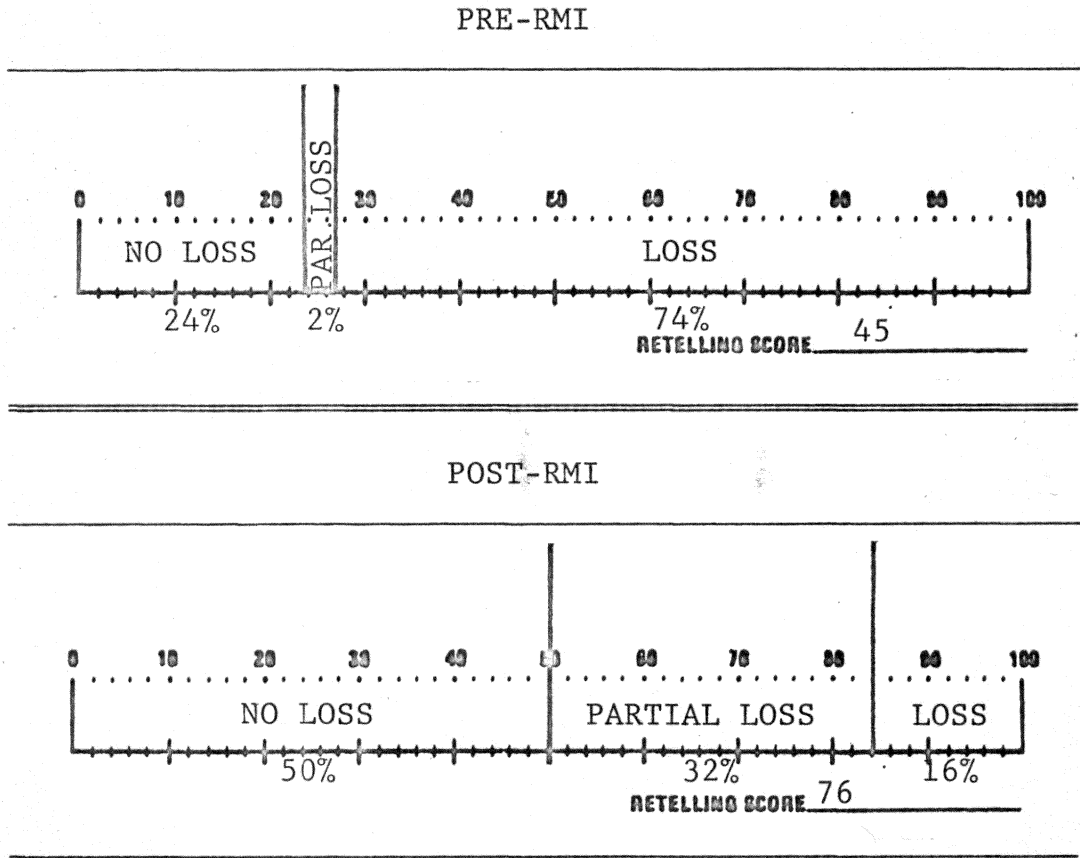


FIGURE IV-26

COMPREHENSION PATTERN--
SUBJECT F

Grammatical Relationships

The pre- and post-grammatical relationships graphs in Figure IV-27 indicate the Weakness score decreased from 70 percent to 44 percent, while the Strength score increased from 30 percent to 48 percent. The Partial Strength score

increased from zero percent to two percent, and the Over-correction score increased from zero to six percent.

PRE-RMI (Percent)				POST-RMI (Percent)			
Relationships				Relationships			
Strength	Partial Strength	Weakness	Overcorrection	Strength	Partial Strength	Weakness	Overcorrection
100	100	100	100	100	100	100	100
90	90	90	90	90	90	90	90
80	80	80	80	80	80	80	80
70	70	70	70	70	70	70	70
60	60	60	60	60	60	60	60
50	50	50	50	50	50	50	50
40	40	40	40	40	40	40	40
30	30	30	30	30	30	30	30
20	20	20	20	20	20	20	20
10	10	10	10	10	10	10	10
30	0	70	0	48	2	44	6

FIGURE IV-27

GRAMMATICAL RELATIONSHIPS--
SUBJECT F

Grammatical Function

The pre- and post- grammatical relationships function graphs in Figure IV-28 indicate that substitutions with the Identical grammatical function as the text item increased from 44 percent to 74 percent. Substitutions with a different grammatical function from the text item decreased from 56 percent to 26 percent.

Sound Relationships

The sound relationships graphs in Figure IV-29 indicate that there was an increase in the High sound similarity scores from the pre- to post-RMI while there was a

decrease in the Some sound similarity scores. When the High and Some sound similarity scores for both the pre-RMI and post-RMI are combined there is no change in the 66 percent dependence on phonemic cues. Substitutions with no sound similarity remained at 34 percent for both the pre- and post-RMI.

PRE RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
44	0	56	74	0	26

FIGURE IV-28

GRAMMATICAL FUNCTION--
SUBJECT F

Graphic Relationships

The graphic relationships graphs in Figure IV-30 indicate a decrease in substitutions with High graphic similarity from the pre- to post-RMI. Substitutions with Some graphic similarity remained at 24 percent while substitutions with no graphic similarity increased from 20 percent to 26 percent. When the High graphic similarity scores

are combined with the Some graphic similarity scores, there is a decrease from 80 percent dependence on graphic cues on the pre-RMI to 74 percent dependence on the post-RMI.

PRE-RMI (Percent)			POST-RMI (Percent)		
Sound			Sound		
High	Some	None	High	Some	None
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
20	46	34	34	32	34

FIGURE IV-29

SOUND RELATIONSHIPS--
SUBJECT F

RMI Data Summary

The pre- and post-RMI data indicate that Subject F

1. produced more semantically acceptable structures within the whole text on the post-RMI as evidenced by an increase in the No Loss of meaning score.

2. produced more structures which were both syntactically and semantically acceptable in relation to the total context of the story as evidenced by an increase in the post-RMI grammatical relationships Strength score.

3. produced more substitutions that retained the same

grammatical function as the text item as evidenced by an increase in the post-RMI Identical grammatical relationships function score.

4. did not exhibit a change in dependence on phonemic cues when the High and Some sound similarity scores were combined.

5. decreased his dependence on graphic cues as evidenced by an increase in the post-RMI grammatical function None score.

6. increased his Retelling Score.

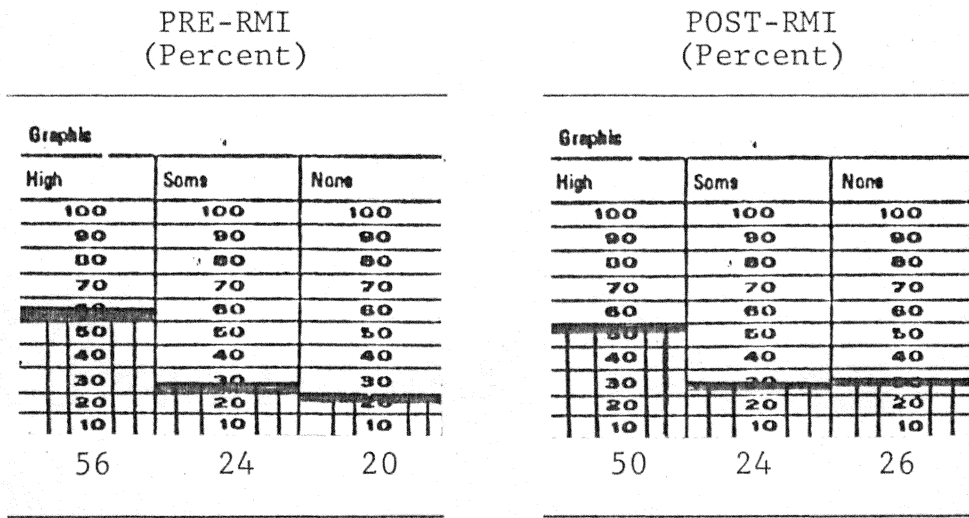


FIGURE IV-30
GRAPHIC RELATIONSHIPS--
SUBJECT F

D. EXPLORATORY QUESTIONS

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

Before the beginning of the sessions Subject F said

that he "didn't like to read" because "he couldn't sit still." He explained that he could not sit still because he did not know the "difficult" words. After twenty-eight sessions he said that he felt "good" about reading and he indicated that he liked using the tapes. After the final session he said he liked to read "because it gives me something to do when I ain't got nothin' to do."

At the beginning of the sessions he said that he did not go to the library or read at home. After the twenty-eighth session and after the final session he said that he went to the library to read magazines; he also read books and magazines at home. After the final session he said that he read the Bible "once in a while."

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 3, was used with Subject F. Form A was administered as the pretest, and Form B was used as the post-test. His scores (in percentiles) were

Pretest	- Level 3, Form A:	46
Post-test I	- Level 3, Form B:	38
Post-test II	- Level 3, Form B:	49

CASE G

A. OBJECTIVE DATA: The purpose for presenting the following objective data is to provide background information about the student.

Age: 13-8¹

Grade: Educable Mentally Retarded Class - 8

School Test Data:

TEST ²	DATE	SCORE
WISC	3/77 . . . . .	.VIQ: 58; PIQ: 57
WRAT (Reading)	3/77	2.4
SORT	9/76	2.1
SORT	4/77	3.0

¹9/76

²WISC = Wechsler Intelligence Scale for Children
WRAT = Wide Range Achievement Test
SORT = Slosson Oral Reading Test

B. ASSISTED READING SESSIONS:

Subject G attended thirty-one sessions and read a total of ten short stories from December until April. He began in instructional stage one of assisted reading and progressed to instructional stage two by the eighth session. He was in instructional stage two at the end of the treatment sessions. During a taped interview with the researcher at the end of the sessions, he said that he liked using the

tapes because "they help me read."

C. A COMPARISON OF SUBJECT G'S PRE-
AND POST-READING MISCUE INVENTORY
SCORES ON THE RMI READER PROFILE

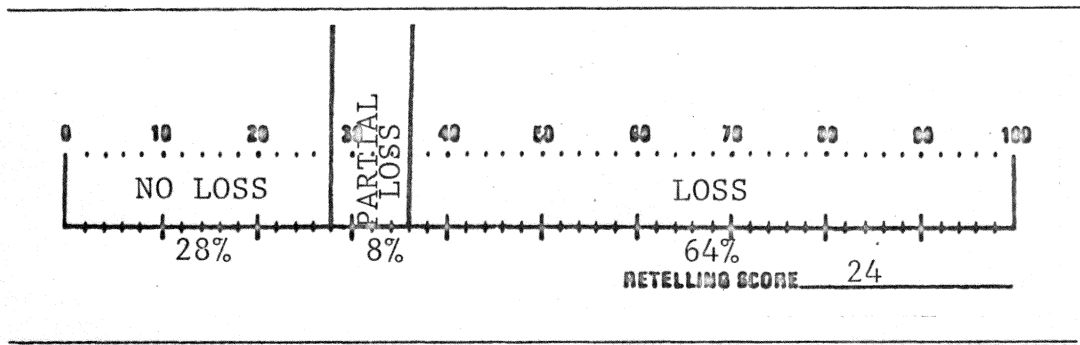
Question 1: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

The percentage scores from Subject G's pre- and post-RMI Reader Profiles were compared for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships. The Retelling Scores also were compared. Subject G read "The Line Down the Middle of the Room" for the pre-RMI and "The Old Man, His Son -- and the Donkey" for the post-RMI.

Comprehension Patterns

The pre- and post-comprehension patterns scores in Figure IV-31 indicate that 64 percent of the miscues on the pre-RMI resulted in a Loss of meaning, while 30 percent of the miscues on the post-RMI resulted in a Loss of meaning. The pre-RMI No Loss of meaning score of 28 percent increased to 56 percent on the post-RMI. The Partial Loss score of eight percent increased to 14 percent on the post-RMI. Subject G's Retelling Score increased from 24 points to 57 points.

PRE-RMI



POST-RMI

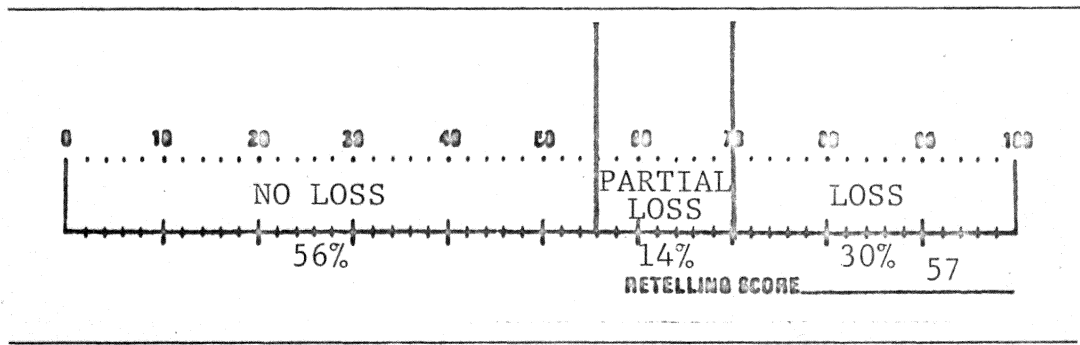


FIGURE IV-31

COMPREHENSION PATTERN--
SUBJECT G

Grammatical Relationships

The pre- and post-grammatical relationships graphs in Figure IV-32 indicate the Weakness score decreased from 78 percent to 50 percent, while the Strength score increased from 18 percent to 42 percent. The Partial Strength score increased from zero percent to six percent, and the Over-correction score decreased from four percent to two percent.

Grammatical Function

The pre- and post-grammatical relationships function graphs in Figure IV-33 indicate that substitutions with the Identical grammatical function as the text item increased from 58 percent to 72 percent. Substitutions with a different grammatical function from the text item decreased from 35 percent to 28 percent, while substitutions with an Indeterminate function score decreased from seven percent to zero percent.

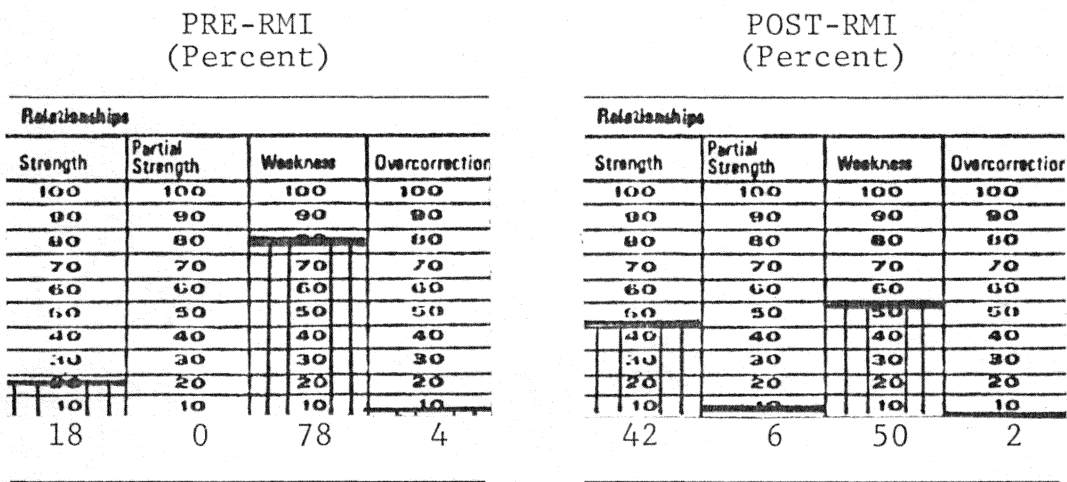


FIGURE IV-32

GRAMMATICAL RELATIONSHIPS--
SUBJECT G

Sound Relationships

The sound relationships graphs in Figure IV-34 indicate a decrease in both the High and Some sound similarity scores from the pre- to post-RMI. When the High and Some sound similarity scores are combined there is a decrease from 94 percent dependence on phonemic cues on the pre-RMI

to a dependence of 84 percent on the post-RMI. Substitutions with no sound similarity to the text item increased from six percent to 15 percent.

PRE-RMI (Percent)			POST-RMI (Percent)		
Function			Function		
Identical	Indeterminate	different	Identical	Indeterminate	different
100	100	100	100	100	100
90	90	90	90	90	90
80	80	80	80	80	80
70	70	70	70	70	70
60	60	60	60	60	60
50	50	50	50	50	50
40	40	40	40	40	40
30	30	30	30	30	30
20	20	20	20	20	20
10	10	10	10	10	10
58	7	35	72	0	28

FIGURE IV-33

GRAMMATICAL FUNCTION--
SUBJECT G

Graphic Relationships

The graphic relationships graphs in Figure IV-35 indicate an increase in substitutions with High graphic similarity to the text item and a decrease in substitutions with Some graphic similarity to the text item. When the High and Some graphic similarity scores are combined there is a decrease from 84 percent dependence on graphic cues on the pre-RMI to an 80 percent dependence on the post-RMI. Substitutions with no graphic similarity to the text item increased from 16 percent to 19 percent.

PRE-RMI
(Percent)

Sound		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
29	65	6

POST-RMI
(Percent)

Sound		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
24	60	15

FIGURE IV-34

SOUND RELATIONSHIPS--
SUBJECT G

PRE-RMI
(Percent)

Graphic		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
26	58	16

POST-RMI
(Percent)

Graphic		
High	Some	None
100	100	100
90	90	90
80	80	80
70	70	70
60	60	60
50	50	50
40	40	40
30	30	30
20	20	20
10	10	10
41	39	19

FIGURE IV-35

GRAPHIC RELATIONSHIPS--
SUBJECT G

RMI Data Summary

The pre- and post-RMI data indicate that Subject G

1. produced more semantically acceptable structures within the whole text on the post-RMI as evidenced by an increase in the No Loss of meaning score.
2. produced more structures which were both syntactically and semantically acceptable in relation to the total context of the story as evidenced by an increase in the post-RMI grammatical relationships Strength score.
3. produced more substitutions that retained the same grammatical function as the text item as evidenced by an increase in the post-RMI Identical grammatical relationships function score.
4. decreased his dependence on phonemic and graphic cues as evidenced by increases in both the sound and graphic similarity None scores.
5. increased his Retelling Score.

D. EXPLORATORY QUESTIONS

Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

During the interview prior to the treatment sessions Subject G said he "didn't feel too good" about reading. When asked why he did not feel too good, he replied, "I don't know how to read." After the twelfth session he was asked how he felt about reading, and he said, "I like it

now." When asked why, he said, "I know how to read now." After the final session he said that he liked to read and would like more help.

The interviews revealed that he did not go to the library or read at home prior to the sessions, but he did go to the library to look at magazines during the sessions. He also began reading the comics in the newspaper at home by the end of the sessions.

Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test after involvement in whole language by means of assisted reading?

The comprehension section of the California Reading Achievement Test, Level 2, was used with Subject G. Form A was administered as the pretest and Form B was used as the post-test. His scores (in percentiles) were

Pretest	- Level 2, Form A:	10
Post-test	- Level 2, Form B:	29

Chapter V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this study was to determine if high school students with a history of reading problems would demonstrate a more effective use of the language cue systems after immersion in the whole language by means of assisted reading.

SUMMARY

Seven male students whose grade levels ranged from eight to twelve participated in treatment sessions varying in number from thirty-one to sixty-three per individual. Each student's pre- and post- use of the graphophonic, syntactic, and semantic cue systems was evaluated and analyzed by the Reading Miscue Inventory (RMI) (Y. Goodman and Burke, 1972). The percentage scores for Comprehension Patterns, Grammatical Relationships Patterns, and Sound/Graphic Relationships found on each student's pre- and post-RMI profile were compared. Pre- and post-Retelling Scores also were compared. Each student's effectiveness in using the cue systems was reflected by the degree to which his reading comprehension improved.

Exploratory purposes of the study were to determine

of a standardized reading achievement test would improve after the use of whole language by means of assisted reading.

CONCLUSIONS

Research Question: Will high school students with a history of reading problems demonstrate a more effective use of the graphophonic, syntactic, and semantic cue systems in the reading process after involvement in whole language by means of assisted reading?

A comparison of the total group's pre- and post-RMI scores indicates that the students made more effective use of the cue systems after involvement in whole language by means of assisted reading.

The total group's ability to produce semantically acceptable structures was strengthened as evidenced by an increase in the No Loss of meaning scores. This increase provides evidence that all the students were aware of the need to make sense of what they were reading and that they had increased their use of the semantic cue system in order to do so.

The total group's concern for producing structures which were both semantically and syntactically acceptable with respect to the total context of the story is evidenced by the grammatical relationships Strength scores.

The increase in both the No Loss of meaning scores and the grammatical relationships Strength scores indicates that each subject increased in his ability to correct his miscues in order to preserve meaning. The increased reliance

by the total group on both the semantic and syntactic cues demonstrates the concern for making oral reading sound like language. It also is additional evidence of their realization that reading must make sense.

Although the Identical grammatical relationships function scores were high on the pre-RMI the majority of the group further increased in the ability to substitute words that retained the Identical grammatical function as the text item. These scores on the pre-RMI were high because the ability to substitute words in a sentence with the same grammatical function as the text item is dependent upon one's intuitive knowledge of language. The increase in these scores evidences that involvement in whole language provides the reader the opportunity for greater application of his intuitive knowledge of language.

The subjects' use of graphophonic cues did not change appreciably from the pre- to post-RMI since the treatment attended to the effective use of meaning cues. The use of graphophonic cues was not dealt with during the treatment sessions.

The post-RMI total group increases in the No Loss of meaning score along with the increases in the grammatical relationships Strength and Retelling scores provide evidence that the students had increased their reliance on the use of syntactic and semantic cues.

The pre-RMI total group profile indicates that the subjects' reliance on graphophonic cues was stronger than on meaning producing cues, i.e., syntactic and semantic. The post-RMI profile shows that, while all of the subjects continued to rely on graphophonic cues, there was increased reliance on syntactic and semantic cues as evidenced by the increases in the total group's No Loss of meaning score and the grammatical relationships Strength score. This increased reliance on the meaning producing cues indicates that the students were attempting to read for meaning as a result of the use of whole language by means of assisted reading.

Exploratory Question 1: Will high school students with a history of reading problems improve their attitude toward reading after involvement in whole language by means of assisted reading?

Based upon responses to the questions posed by the researcher before, during, and after the assisted reading sessions, the conclusion was reached that the group improved its attitude toward reading after the assisted reading sessions. Not one of the subjects indicated that he liked reading before the treatment sessions, but they all indicated that they liked it at the conclusion of the treatment. In the case of Subject A, not only did his attitude toward reading change, but also his entire outlook on life improved as evidenced by behavior changes both in school and at home, which his mother noted with enthusiasm.

At the end of the treatment sessions all subjects evidenced being in the transition from learning to read to reading to learn as they all were willing to undertake new reading in other areas.

Exploratory Question 2: Will high school students with a history of reading problems improve their percentile scores on the comprehension section of a standardized reading achievement test as a result of involvement in whole language by means of assisted reading?

The percentile scores of the seven students who participated in this study showed much variation from the pretest to post-test. They were not consistent with the results generated by the Reading Miscue Inventory administered by the researcher or the results of the Peabody Individual Achievement Test and the Slosson Oral Reading Test administered by the high school Resource teacher. Consequently, valid conclusions about the students' progress could not be reached based upon these percentile scores.

OBSERVATIONS

When the progress of selected subjects is viewed in relation to the progress made by the total group, certain important observations can be made. Subject A, who had the least developed reading skills before the treatment, made the greatest increase in the No Loss of meaning score, while Subject B, who read content material, made the least amount

of increase in the No Loss of meaning score. Subject A also made the greatest increase in the grammatical relationships Strength score, while Subject B made the least increase. Subject A had the greatest decrease in the grammatical relationships Weakness score, while Subject B had the least decrease. It appears that the reading of content material affected the progress made by Subject B.

The assumption made by Y. Goodman, Burke, and Sherman (1972) that a child's ability to comprehend is limited only by what he knows is supported in this study by comparing the progress made by Subject B with the other students in the research group. Subject B read content material about which he knew little, while the other students had the opportunity to choose and read stories which were of interest to them. Subject B's pre- and post-RMI graphophonic scores, like the other subjects, show relatively little change, and, when compared with the other subjects' scores, are equivalent. This indicates that his ability to recognize or sound out words was well developed. Apparently, what had not developed was proficiency in applying the predicting, confirming, and comprehending strategies identified by Y. Goodman, Burke, and Sherman (1974). By using content material as the reading material for application of assisted reading, the opportunity for the reader to predict was restricted because his experience with, or his concept of the material being presented

was limited. Confirming or testing for syntactic or semantic acceptability also was difficult and time consuming since the material read was not familiar to him. With limited opportunity to make predictions and difficulty in confirming and comprehending, Subject B's ability to interact with the language and thought of the author was restricted. Therefore, his potential for developing reading proficiency was reduced. This is consistent with Watson's (1973a) conclusion regarding the match between the thought and language of the author and reader. It appears that the material used to involve the reader in the whole language has a direct effect upon the ease and rapidity of developing reading proficiency. Therefore, selection of material for use in the application of assisted reading is very important. Initially, it should be selected considering the subject's interest, knowledge, and reading proficiency. Over time it must be increased in difficulty so as to build gradually the student's confidence to the point where he is making effective use of the cue systems and can become an independent reader.

The introduction of the questions "Does it sound like language?" and "Does it make sense?" at the beginning of instructional stage two appears to have had an effect on the reader's use of syntactic and semantic cues. The researcher posed the questions to each student as he made

miscues during the oral rereading of his story. As each student began correcting miscues without being reminded to ask himself the questions, the researcher asked him why he had corrected his miscue or miscues. Each student would invariably say, "Because it don't sound right." or "Because it don't make sense." The questions "Does it sound like language?" and "Does it make sense?" appear to force the student to use his natural language competence and apply his intuition, knowledge, and experience in predicting, confirming, and comprehending. The student had developed strategies necessary to correct his miscues.

The data generated during the research support the basic assumption of this study, i.e., students with reading problems can be helped if reading is presented in the context of whole language. K. Goodman's (1973) hypothesis that language which is presented from the beginning of children's introduction to print should be whole, natural, and relevant is supported by the data.

The results indicate that prior to the treatment sessions the seven subjects who participated in this study did not have reading problems because of their inability to apply graphophonic cues. The problem was that they had not "crossed the bridge" from dependence on the graphophonic cue system to an interrelated use of all the cue systems. Prior to involvement in whole language they focused mainly on one dimension of a three dimensional process whose ultimate

outcome is the reconstruction of meaning, i.e., they focused more on graphophonic cues than on syntactic and semantic cues. These results support Menosky's (1971) conclusions which emphasize the importance of providing the whole language for the reader.

The whole language approach afforded these students the opportunity to use their language competence in learning to read. In addition to relying on graphophonic cues, they learned to rely more on their intuitive knowledge of language and their previous experiences, and, therefore, increased their use of syntactic and semantic cues.

The research data generated by this study, which are consistent with the findings of K. Goodman (1965), Y. Goodman (1967), Page (1970), Menosky (1971), and Watson (1973b), lead to the conclusions that by application of an effective whole language technique such as assisted reading

1. the student can learn to use his own language and thought more effectively in the reading process;
2. the student can learn to use the graphophonic, syntactic, and semantic cue systems in an interrelated and effective manner in order to improve his reading comprehension;
3. the student can improve his reading comprehension by utilizing predicting and confirming strategies; and
4. the student can learn to rely on and use his natural language competence while attempting to find meaning.

The interviews indicated that the students reached similar, although more simply stated, conclusions.

Subject A said, "I can just use what comes natural and it usually works out."

Subject C said he learned to read "by readin'."

Subject F said his reading had improved "a whole lot." He said he had learned to "read on" when he found a word he did not know until he could "find out what is happening in the story and then come back and figure it out."

Subject G said he was making corrections in his reading "because it don't sound right" or "it don't make sense."

All these expressions considered together demonstrate use of already developed language competence, intuition, knowledge of language, experience, predicting, confirming, and comprehending strategies and a realization that reading has to sound like spoken language and make sense.

Improvement in reading proficiency was accompanied by an improvement in attitude. This conclusion supports Watson's (1973b) findings on the positive effect that learning to read by reading has on attitude. This improvement in attitude, in the opinion of the researcher, has its roots in the technique of involving the student in whole language, where the student is an active participant, making use of his natural language competence, and interacting with the language and thought of the author by apply-

ing what he already knows. This interactive relationship with the author results in the communication of ideas, or comprehension. In this participatory process success is the product of the student's effort and the student learns at his own pace. The success attained is self-perpetuating, i.e., success reinforces motivation, which in turn facilitates more success in terms of sense of accomplishment or progress toward a goal. Success builds confidence and an improved self-concept which are reflected in improved attitudes and behavior patterns. The feeling of frustration, the sense of progress or accomplishment, and the realization of the importance of reading was experienced and expressed by the group as a whole. It was expressed by different subjects in different ways. The feeling of frustration was expressed by Subject D who felt "awful" about reading and "didn't like it" at the beginning. It also was expressed by Subject F who initially "didn't like to read" because he "couldn't sit still." Subject G "didn't feel too good" about reading because he did not "know how to read." Subject A acknowledged the importance of learning to read (so he could graduate from high school), but his frustration was evident when he said, "I had hateful teachers" and "They talked like they didn't want me."

Subject B, who started out by being involved in content material and later transferred to other materials

at the library and at home, realized that reading was "a good thing" because "if you can't read, you can't get much of no place." Each subject recognized his own success and saw implications for others, when he said that he would recommend the treatment sessions to a friend with a reading problem.

IMPLICATIONS FOR INSTRUCTION

The results highlight the impact of the use of whole language in the teaching of reading. They strongly emphasize that it is not enough for a student to be able to recognize a shape and utter a sound since shapes and sounds are mere abstract pieces of language which are meaningless when presented in isolation. The whole language must be available if reading for meaning is to take place. Whole language allows the reader to apply his language competence and provides him with the information necessary to answer the questions, "Does what I am reading sound like language?" and "Does what I am reading make sense?"

The results are consistent with the psycholinguistic assumptions about the reading process discussed in chapters I and II of this study (K. Goodman, Y. Goodman, Smith, Page, Watson, Menosky, Burke, et al.). The assumptions which have significant implications for instruction include

1. The purpose of reading is the reconstruction of meaning through the interaction between the language and

thought of the reader and the author.

2. Reading is language, and readers are users of language.

3. Children are active participants in the reading process and should learn to read by reading.

4. Reading is not an exact process since the reader brings his intuitive knowledge of language and his experiences to the printed page to interact with the author's language and thought.

5. Children should be involved in whole language as they read in order to ensure the use of the graphophonic, syntactic, and semantic cue systems.

The results of this study support the theory that instructional techniques which use whole language, such as assisted reading, should be incorporated into the reading program.

Several insights into the effective application of assisted reading as a remedial technique which uses whole language resulted from this study. The following suggestions for instruction are applicable not only for the teacher in a special situation, but also for the regular classroom teacher since the pilot study was conducted within the regular classroom.

Strategies and Procedures

Assisted reading facilitates the use of several

strategies which help the student integrate the use of the cue systems to increase comprehension. The use of the questions "Does it sound like language?" and "Does it make sense?" appears to be a very effective strategy to aid the student in the correction of miscues.

The use of the Directed Reading-Thinking Activity during instructional stage three of assisted reading provides the student with practice in predicting and confirming as he becomes an independent reader.

Retelling is a strategy which is used from the very beginning of assisted reading to provide the student with the opportunity to use his language and thought to organize and talk about the events of the story.

The use of the taping procedure provides the teacher with the freedom necessary to work with individuals and groups of students at the same time. It also allows for flexible grouping according to the needs and interests of the students. Most importantly, it provides a means to involve the student in whole language while learning to read.

Materials

Numerous and varied kinds of reading materials need to be available to use with assisted reading during all instructional stages. The selection of the material is very important during the initial sessions with the student.

Stories which are short and of high interest must be used to provide the student with the feeling of success in a short period of time. The language in the story should be highly predictable, and the content of the story or book used during each stage should relate to the background experiences and interests of the student.

Setting

The setting for the assisted reading sessions must be one which is conducive to the improvement of the student's attitude about reading. Individual attitudes, feelings, needs, and objectives need to be met and dealt with in an atmosphere of patience, confidence, and acceptance. The feeling of frustration generated by difficulty in learning to read can only be amplified by an atmosphere of rejection and impatience. The remarks of Subject A, whose attitude and behavior changes were more marked, are recalled for emphasis of this point: "I had hateful teachers." "They talked like they didn't want me."

An atmosphere must be created and maintained where interaction and communication between the students, individually and collectively, and the teacher is facilitated. The students should be treated as people with problems who require attention, affection, and acceptance in order to find themselves and set themselves to the task of learning to read.

Teacher Preparation

The effective use of assisted reading as a remedial method requires an understanding of the assumptions underlying the psycholinguistic nature of the reading process. In addition, the teacher must be taught to use the taping procedure and the questioning strategies which have been applied in this research.

IMPLICATIONS FOR FURTHER RESEARCH

The use of assisted reading as a means of involving the student in whole language has caused the researcher to see certain implications for further research based on the following questions:

1. What effect does the use of the two questions "Does it sound like language?" and "Does it make sense to me?" have upon the student's use of graphophonic, semantic, and syntactic cues?
2. Does reading through involvement in whole language by means of assisted reading have an effect on the development of proficiency in written expression?
3. What effect does the use of different kinds of subject material for involving the student in whole language by means of assisted reading have upon the student's progress in developing reading comprehension?
4. Would pre- and post-RMI profiles constructed for students who had been taught to read through involvement

in whole language by means of assisted reading differ from those who had not been taught through involvement in whole language? If so, how and why? If not, why not?

The purpose of this study was to determine the effect of using a remedial reading technique based upon theories of transformational grammar, language acquisition, and psycholinguistics through evaluation of observed reading behavior by using the Reading Miscue Inventory. While the results of this study are expressed in quantitative, objective terms, additional value for the researcher lies in the more qualitative, subjective aspects. The researcher, in almost daily one-to-one contact with the students, was able to contribute to an improved sense of well-being on the part of all of them. To watch the students "find themselves" through learning, gaining self-confidence and achieving success to a degree never before felt or experienced by them, was satisfying. As a result of this study, the researcher feels a tremendous sense of personal and professional accomplishment and an increased desire to continue efforts in the area of reading research and application of new techniques.

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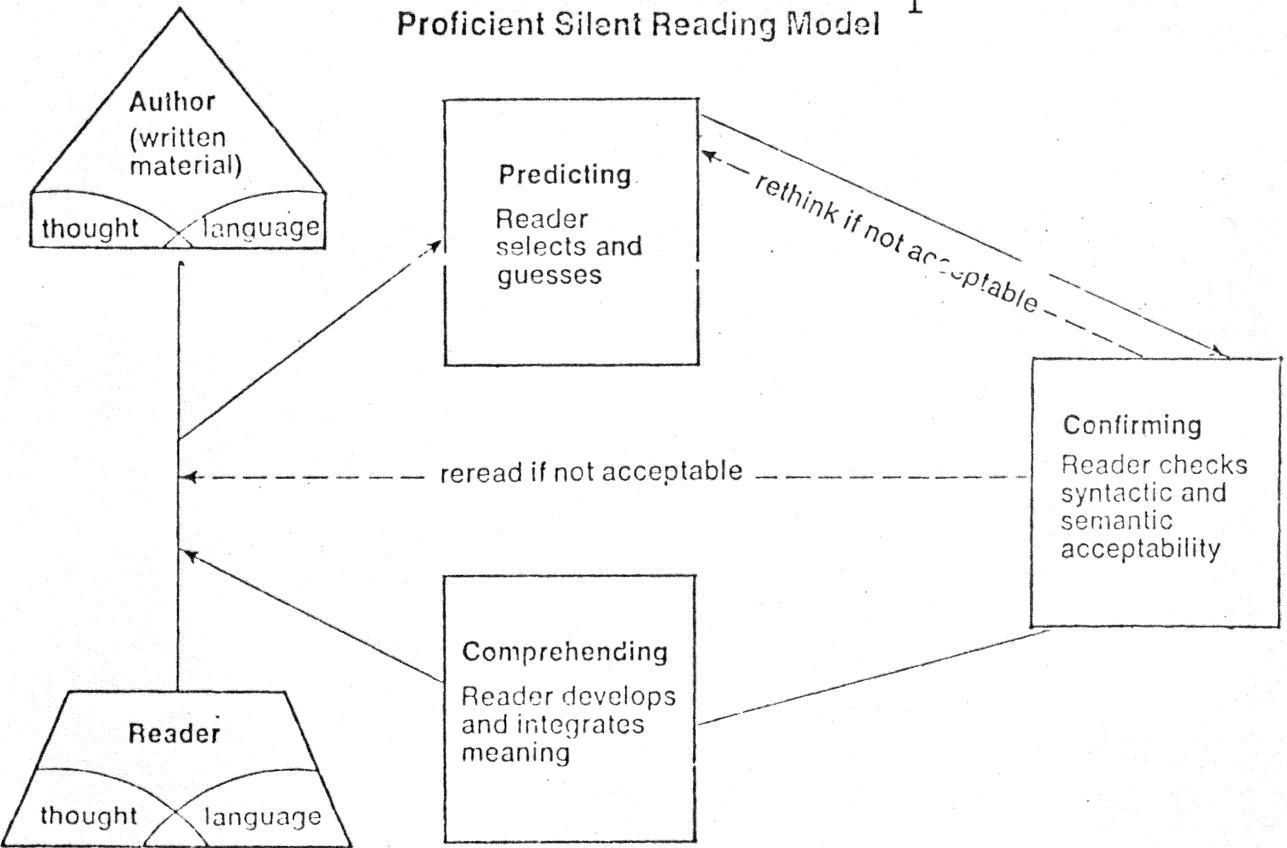
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APPENDIX A

Proficient Silent Reading Model ¹



¹Y. Goodman and Burke, 1974.

APPENDIX B

ORAL READING SELECTIONS FOR PRE- AND POST-RMI

SUBJECT	PRE-RMI	POST-RMI
A	A Day at Home	The Line Down the Middle of the Room
B	Why the Parrot Repeats Man's Words	Zoo Doctor
C	First Kill	Anita's Gift
D	Why the Parrot Repeats Man's Words	Zoo Doctor
E	Space Pet	Name of the Tree
F	Zoo Doctor	Why the Parrot Repeats Man's Words
G	The Line Down the Middle of the Room	The Old Man, His Son -- and the Donkey

APPENDIX C

READING MISCUE INVENTORY CODING SHEET

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Reader _____	Date _____	Selection _____
Teacher _____	Class _____	School _____

QUESTION TOTAL		COLUMN TOTAL PERCENTAGE	QUESTION TOTAL	PATTERN TOTAL	COLUMN TOTAL PERCENTAGE	PATTERN TOTAL		
							Miscue Number	
							Reader	
							Text	
							DIALECT	1
							INTONATION	2
						Y P N	GRAPHIC SIMILARITY	3
						Y P N	SOUND SIMILARITY	4
						Y P N	GRAMMATICAL FUNCTION	5
							CORRECTION	6
							GRAMMATICAL ACCEPTABILITY	7
							SEMANTIC ACCEPTABILITY	8
							MEANING CHANGE	9
							No Loss	
							Partial Loss	
							Loss	COMPREHENSION
							Strength	
							Partial Strength	
							Weakness	
							Overcorrection	GRAMMATICAL RELATIONSHIPS

APPENDIX D

INTERVIEW WITH MOTHER OF SUBJECT A
MAY, 1977

Subject A's mother was not able to attend an evening conference that had been scheduled, so the researcher went to a restaurant where she was employed and interviewed her. The following is a summary of the most outstanding points of that interview.

Subject A's mother said that he had been a problem child ever since he entered first grade, and he had resisted all help in reading prior to the beginning of his participation in this reading program. She indicated that she saw a change in his attitude during the year. She said that he now wants to learn, and it is too bad that this attitude has just appeared at the end of his Senior year. She also said that many of his disruptive behavior problems have disappeared. She attributed his previous history of disruptive behavior to the fact that he felt so bad because he could not read. She said that she always tried to tell his teachers that he was "bad" in school because he could not read.

When she was asked if he read at home, she said that she hated to say it, but she was really proud that he now read Playboy magazine. She called the materials that he read

"dirty" but was proud of the fact that he could now read. She said before the assisted reading sessions he would try to read, but could not even sound out "little" words like "and." She said that he was not able to read complete sentences or make sense out of sentences before assisted reading. She was impressed by the way he could obtain meaning from what he read without knowing all the words.

She asked if he was a behavior problem in class, and tears came to her eyes when she was told that he never presented any problems. She said that he was disappointed for the first time since he started school when she missed the evening conference that had been scheduled for the purpose of discussing his progress. She pointed out that every conference she had ever had prior to this one was held because "[Subject A] was in trouble." She was definitely pleased with his performance as a result of his participation in the reading program.

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ASSISTED READING AS A REMEDIAL
READING TECHNIQUE AT THE HIGH SCHOOL
LEVEL: A PSYCHOLINGUISTIC EVALUATION

by

Bonnie Nicodemus Miller

(ABSTRACT)

The major purpose of this study was to determine if seven high school students with a history of reading problems would demonstrate more effective use of the graphophonic, syntactic, and semantic cue systems after involvement in reading by means of a whole language approach.

The underlying assumption of this study was that students who experience problems in learning to read can be helped if reading is presented in the context of whole language. This assumption is supported by the theoretical bases of psycholinguistic insights into the reading process.

Assisted reading with specially adapted taping procedures and questioning strategies provided the means of involving the students in whole language.

The Reading Miscue Inventory (RMI) was used to evaluate each student's use of the language cue systems during oral readings prior to and following assisted reading sessions. Pre- and post-RMI Reader Profiles consisting of the percentage scores for Comprehension Patterns, Grammatical

Relationships Patterns, and Sound/Graphic Relationships were constructed and compared, Pre- and post-Retelling Scores also were compared.

The pre-RMI group scores indicate that before involvement in whole language the subjects' reliance on graphophonic cues was stronger than on meaning-producing cues, i.e., syntactic and semantic. The post-RMI profile shows continued reliance on graphophonic cues and increased reliance on syntactic and semantic cues. Increased reliance on the meaning-producing cues signifies that the students were attempting to read for meaning and were making more effective use of the language cue systems after involvement in whole language.

The results support the use of whole language in the teaching of reading. Therefore, instructional techniques such as assisted reading which use whole language should be incorporated into the reading program.

Exploratory purposes of the study were to determine if the students' attitude toward reading would improve and whether their percentile scores on the comprehension section of a standardized reading achievement test would improve after involvement in whole language.

Prior to the assisted reading sessions, not one of the students indicated that he liked to read. Afterwards all the subjects said that they enjoyed reading more than they had when the sessions began. They all made positive

comments about their success and said they would recommend the treatment to a friend with a reading problem.

No valid conclusions could be drawn from the results of the standardized reading achievement tests.

Implications for further research resulted from the study.