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ABSTRACT

This evaluation was undertaken in an effort to provide data concerning the effectiveness of the Tucson Early Education Model, a Follow Through Model sponsor and reading instruction program which advocates the language experience approach. Seventy-three children were tested according to a miscue analysis model, in order to identify those differences between Follow Through program participants and nonparticipants which may be the result of varying instructional techniques, and in order to identify those similarities between the two groups which are the result of a single reading process. The six chapters in this volume outline research methodology, describe the results of in-depth analysis of the strategies of two readers, discuss group analysis and the retelling of stories, and report conclusions. Tabulations of data and appendixes which detail the testing process are included. (KS)

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MISCUE ANALYSIS OF THE READING OF
THIRD GRADE FOLLOW THROUGH AND
NON-FOLLOW THROUGH CHILDREN
IN WICHITA, KANSAS

Carolyn Ewoldt

October, 1976

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CHAPTER ONE INTRODUCTION

BACKGROUND

The Tucson Early Education Model (TEEM), has been a Follow Through Model Sponsor since 1971. Currently, TEEM is being implemented in 10 communities in the United States, serving approximately 1500 children and 1000 parents. The percentage of children and ethnic groups served by TEEM varies from one community to another, but the program includes Black, White, Spanish-surname, Native American, and other children wherever these groups are represented in the community.

One of the major goals of the TEEM program is stated as follows:

Language Base: The development of competence in language is a major technical skill which a child must acquire. He must become acquainted with the variety of words, concepts and language forms that are required for communication. The child also needs to be aware of the function of language in a variety of settings. (Summer Evaluation Report, 1967-1974, p. 5)

In accordance with this objective, reading instruction in the program currently is based on the Language Experience Approach to Reading (LEAR). The rationale for this approach is that reading is a language process which can best be learned through the use of the child's own language (language experience). The use of such materials which present language as whole and natural, enables the program teacher to develop within each learner the skills needed for language competence. At the same time, the teacher is also orchestrating the child's learning TEEM goals: these goals are Intellectual Base, Motivational Base, and Societal Arts and Skills.

In the past, standardized tests (the Metropolitan Achievement Tests and the Iowa Test of Basic Skills) have been used as measures of academic achievement. The program has been evaluated on an annual basis in the spring. In 1975, TEEM researchers felt that an evaluative approach through direct analysis would provide greater insights into the effectiveness of a language-based program than would the use of standardized tests. For this reason, a study was designed to compare samples of the reading of Follow Through and Non-Follow Through children. The study was to be conducted through direct analysis.

Miscue analysis was chosen as the means for evaluating the reading of these children because of the psycholinguistic insights it provides in viewing reading as a language process. Standardized tests cannot provide insights into the reading process and information about the strategies used by individual readers as miscue analysis does. In addition, standardized test scores generally underestimate the reading proficiency of children because of the rigidity of their procedures and their emphasis on precise reading.

Miscue analysis began in 1963 and has been used in four federally funded research projects and numerous doctoral dissertations (see references).

THE READING PROCESS

A *miscue* is here defined as an unexpected response or any deviation from the print. It is what is commonly referred to as an error, but Kenneth Goodman, who developed the term, chose it deliberately because it explains the process which causes it to occur.

Three cueing systems are available to the reader from the language of the text. These are the graphophonic system (the relationship between the graphic representation of the word and the sound), the syntactic system (the structure of the language), and the semantic system (the meaning). The reader makes predictions and samples from these three systems to confirm the predictions. This same process can result in the expected response or a miscue.

Some of the miscues observed are acceptable in terms of the structure and meaning of the whole story, while others are not, and this is the point at which miscue analysis differs from most other forms of reading evaluation in determining the proficiency of the reading.

In miscue analysis the use of the cueing systems is examined to determine whether the reader is making causalistic (effective) and efficient use of the systems in an integrated fashion or whether the cueing system is being overused, resulting in a loss of meaning.

For this type of analysis an elaborate taxonomy was developed by Goodman, and it has been revised and simplified for use by teachers (Reading Miscue Inventory, by Goodman and Burke, 1970).

For the convenience of this study, a new and revised Reading Miscue Inventory was developed by Goodman, Burke, and Harberg, (1974). This form provides all the information necessary to identify the strategies used by individual readers and to evaluate their efficiency, and, thus, is a very effective instrument for use with large groups in a relatively short time.

OBJECTIVES

National Follow Through evaluation has focused on observation of Follow Through children and the extent to which differences and similarities can be attributed to different models of the program. With this evaluation criterion and in accordance with the language competency goal of the FEEN program, the Follow Through group and the Non-Follow Through group (subsequently referred to as FT and NFT) were compared in accordance with the following objectives:

1. To identify differences between the two groups of readers which may be the result of the types of instruction received.
2. To identify similarities between the two groups of readers which are the result of a single reading process, carried on by each child with varying degrees of proficiency.

In order to achieve the above objectives, the groups were compared with regard to the frequency of their miscues, the acceptability of these miscues within the context of the entire story, the degree to which each of the cueing systems was used within each group, the quality of the retellings produced by each group, and other criteria which will be discussed within the body of this report.

LIMITATIONS

One limitation of this study is the lack of information about the language backgrounds of the children in the study. Evidences of Black dialect in the reading of Black children were coded as dialect and were given full syntactic and semantic acceptability. However, when the children were not Black, this determination was not so readily made. The only recourse was to search for the same features in their oral retellings. Where there was no such evidence in the retelling, these features were not coded as dialect and were generally not considered to be acceptable (see discussion, pp. 12).

There were, however, very few instances in which Black dialect features were found in non-Black readers with no substantiating evidence of Black dialect influence in the oral retellings. This is due to the fact that children tend to exhibit more of their own dialect in their spoken language than in reading (Goodman, in press). In addition, with the volume of data collected (see p. 4), small numbers make little difference, ultimately. Nevertheless, this is a limitation of the study which could be

avoided in future research by gathering as much information about the home language as possible from school records and by taking larger samples of oral language from the children who exhibit suspected divergent dialect features in their reading.

A second limitation was the amount of time available for testing the stories chosen for the study. As will be discussed (see p. 5), the stories chosen did meet the established criteria, but they provided some problems for the readers. However, the stories proved to be appropriate in terms of difficulty, as only one child's reading had to be eliminated due to an insufficient number of miscues, and the retelling scores in this study are comparable to those scored in the latest miscue research (Goodman, in press; see p. 63 of this report).

VOLUME OF DATA

Miscue analysis generates a large volume of data which can be analyzed separately and then combined in various ways to discover patterns and correlations. Seventy-three children were used in this study, and a minimum of twenty-five miscues for each child was coded in each of seven categories. (There are twenty-one decisions to be made within the seven categories.) This means that a minimum of 12,775 separate bits of data were analyzed. In addition, the retellings generate more information, and there is a great deal of qualitative information available as well.

CHAPTER TWO METHODOLOGY

SELECTION OF STORIES

Due to the fact that children at any given grade represent a wide range of reading levels, stories were chosen which ranged from the primer through sixth grade so that each reader would be provided with a task which was as equivalent in difficulty as possible to that of every other reader. (See Appendix A for sources of stories used.) These stories were taken from basal readers because they are presumably ranked according to readability criteria, although such criteria do not provide for concept load or the individual child's experience, which may enhance or interfere with an understanding of the story.

All the stories used had to be of sufficient length to provide the readers with a complete and plausible text and of sufficient difficulty for the individual reader to generate at least twenty-five non-dialect miscues. The stories also had to be unfamiliar to the child.

In addition, the following criteria were used in the selection of stories:

1. Setting - urban and contemporary.
2. Main characters - believable; representative of various socio-economic groups; female as well as male.
3. Interesting story line.
4. Some concept to be developed through the reading.
5. Predominantly standard dialect.
6. Theme which would generally be relevant to the children in the study.
7. Events which would generally be relevant to the children in the study.

Table 1 presents the stories in relation to these criteria.

SELECTION OF SITE

Four Follow Through schools in Wichita, Kansas, were chosen for this study. Of the 19 communities where the TEEM program has been implemented, Wichita provides the most credible experimental group, due to the fact that the Follow Through children were pre-selected five years ago and have been followed closely ever since. Children in four Non-Follow Through schools were also available to serve as the Comparison group.

TABLE 1
SELECTED STORIES AND CRITERIA FOR SELECTION

Story Number	Level	Title	Language	Setting	Main Characters	Concept Developed
01	Primer	One, Two, Three, Go!	Standard	Urban, Contemporary	Middle-class; Black and white; male	How rumors spread
02	Grade 1	Presents Don't Walk Away	Standard	Urban, Contemporary	Middle-class; Black; female	Relation of story title to plot
03	Grade 2	The Voice from the Deep	Standard	Urban, Contemporary	Middle-class; Black and white; male	Appropriateness of labels on boxes
04	Grade 3	The Monster	Standard and Colloquial	Urban, Contemporary	Middle-class; Black; male and female	The power of sugges- tion
05	Grade 4	The People Downstairs	Standard	Urban, Contemporary	Middle-class; white; male and female	Consideration for neighbors
06	Grade 5	The Pest	Standard and Colloquial Eye dialect*	Urban, Contemporary	Poor; Black; male	Change of attitude toward younger boy
07	Grade 6	Maria's Big Experiment	Standard	Urban, Contemporary	Middle-class; Spanish American; female	Maria's changing at- titude about herself

*See page 12 for discussion of eye dialect.

SETTING FOR TAPING

The settings varied for the taping according to the facilities available at the different schools. Usually a small room or the school library was available, but at times a room had to be shared with other children. This did not pose many problems. However, two tapes had to be eliminated from the study because of excessive background noise.

SELECTION OF SUBJECTS

The 38 FT subjects participating in the reading miscue analysis were third grade students who had been in the TLEM program for three or more years. The other 38 subjects were chosen from the Non-Follow Through schools. These 76 subjects were chosen on the basis of informal classroom teacher evaluations and a need to balance the participants evenly according to sex. Each teacher was asked to rate her students in the following categories according to reading ability: superior, effective, average, least effective. The researcher then made random choices of subjects from each group and each classification of male and female.

MATCHING OF SUBJECTS AND STORIES

The reading selection for each subject was also determined by teacher evaluation. For example, if the teacher estimate rated the child as an average reader, the child would begin reading "The People Downstairs," a fourth-grade story (see Instructions to Researcher, Appendix B). The final reading selection ultimately chosen for each youngster would vary from the original selection, however, if the research found the initial story chosen to be too frustrating or not challenging enough for the subject. To obtain adequate data, each child must generate at least 25 miscues (deviations from the reading text) in the reading sample. Table 2 shows the sample breakdown.

In addition to estimating the children's reading level, the classroom teachers were asked by the researcher, "What do you use on a regular basis for reading text and materials?", and "Do you use any additional or supplementary materials at any time during your reading instruction?" Table 3 indicates basic and supplemental materials and procedures listed by these teachers. Of the five FT teachers who provided information about their program, only two listed the Language Experience Approach as part of their basic program, and one teacher indicated that language experience was supplemental to the program.

Sounds of Language was considered to be a supplement to the basic program for two teachers and was not listed at all by three teachers. None

TABLE 2
INDIVIDUAL BREAKDOWN ON THE SELECTED STORIES

Story Number	Title of Selection	Source	Basal Level	Follow Through	Non-Follow Through
01	One, Two, Three, Go!	Around the City (Bank Street Series) MacMillan Co., NY	Primer	0 girls 2 boys <u>2</u> total	2 girls 0 boys <u>2</u> total
02	Presents Don't Walk Away	Blue Dilly Dilly, Economy Company, Oklahoma City	Grade 1	1 girl 1 boy <u>2</u> total	0 girls 1 boy <u>1</u> total
03	Voice from the Deep	Far and Away, American Book, New York	Grade 2	0 girls 1 boy <u>1</u> total	1 girl 3 boys <u>4</u> total
04	The Monster	City Sidewalks (Bank Street Series) MacMillan Co., NY	Grade 3	4 girls 4 boys <u>8</u> total	1 girl 1 boy <u>2</u> total
05	The People Downstairs	Young America-II, Lyons & Carnahan, Chicago	Grade 4	5 girls 3 boys <u>8</u> total	3 girls 5 boys <u>8</u> total
06	The Pest	Basic Reading-J, Lippencott, New York	Grade 5	5 girls 5 boys <u>10</u> total	6 girls 4 boys <u>10</u> total
07	Maria's Big Experiment	Galaxies, Houghton-Mifflin, Boston	Grade 6	2 girls 3 boys <u>5</u> total	6 girls 4 boys <u>10</u> total
				17 girls 19 boys <u>36</u> TOTAL*	19 girls 18 boys <u>37</u> TOTAL*

*Three of the 76 reading samples were not used in the study - one, because it contained only 24 miscues, and two because the tapes were too difficult to understand because of background noise.

TABLE 3
MATERIALS AND PROCEDURES USED BY TEACHERS
OF CHILDREN IN THE STUDY

Follow Through Schools			
	Basic Program	Supplemental	Number of Subjects in Each Class
<u>School 1</u>			
Teacher 1	Basal Readers	Programmed materials Language Experience Sounds of Language	9
Teacher 2	Basal Readers	-----	3
<u>School 2</u>			
Teacher	Basal Readers	Sounds of Language Programmed materials	3
<u>School 3</u>			
Teacher 1	Language Experience Basal Readers	-----	6
Teacher 2	Language Experience Basal Readers	-----	2
<u>School 4</u>			
Teacher	(Substitute teacher; no information avail- able)	-----	8
		-	<u>36</u> TOTAL
Non-Follow Through Schools			
	Basic Program	Supplemental	Number of Subjects in Each Class
<u>School 5</u>			
Teacher	Basal Readers	Duplicating Masters	10
<u>School 6</u>			
Teacher 1	Basal Readers	Other Basal Readers	6
Teacher 2	Basal Readers	-----	1
<u>School 7</u>			
Teacher	Basal Readers	-----	9
<u>School 8</u>			
Teacher 1	Basal Readers	Other Basal Readers	10
Teacher 2	Basal Readers	Library Books	2
		16	<u>37</u> TOTAL

of the NFT teachers listed the Language Experience Approach or Sounds of Language, but one teacher indicated that library books were considered supplemental to her program.

Thus, according to teacher reports, a minimum of eleven FT children were not involved with language experience during this school year, and a minimum of eleven FT children had not read Sounds of Language during this school year. At least three FT children had not been given any of the recommended instruction or materials, and none of the FT teachers indicated that independent reading or library books were a part of the reading program.

TRAINING OF RESEARCHER

The field researcher spent approximately 50 hours in training for this assignment. This training consisted of becoming familiar with procedures to be used in collecting the data and in testing the stories to be used as the final selections in the study. The field researcher became thoroughly familiar with the stories to be used. The guide questions for story retellings (Appendix C) were discussed, and the field researcher listened to tapes of retellings done by an experienced researcher. Students in the Tucson area were used by the researcher for practice data-gathering sessions for approximately one week prior to the collection of data at the Wichita site. These practice sessions were recorded on tape and evaluated in meetings of the researchers.

TESTING PROCEDURE

Each subject was told prior to the reading that no help would be given. The subject was encouraged to guess at unknown words or skip them if necessary. The child then read the entire selection unaided.

ANALYSIS PROCEDURE

Listening. A cassette audiotape recording was made of each child's reading and retelling, and these tapes were listened to by two researchers independently. The disagreements between the two marked copies were then listened to by both researchers, and, if necessary, by a third listener to resolve differences (see Appendix D for examples of miscue markings).

Coding. A researcher then coded the first 25 non-dialect miscues for each reader, using the new short form of the Reading Miscue Inventory (Y. Goodman, Burke, and Lindberg, 1974). The coding was checked by a second researcher.

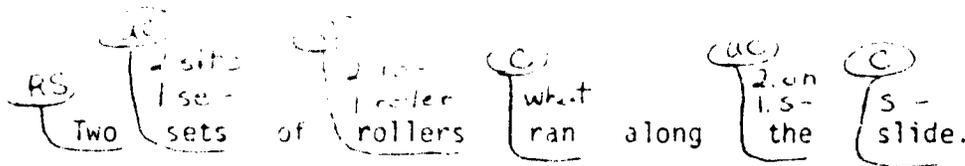
Three of the variables examined in this study deal with the sentence as a whole. They are:

1. syntactic acceptability
2. semantic acceptability
3. meaning change.

These categories include corrections, and decisions are based on the sentence as it was left by the reader.

For example, the following sentence has four word-level miscues, which must be considered together:

(Excerpt from the reading of "The Voice from the Deep" by a NFT reader)



This sentence was finally left as:

Two sits of rollers ran on slide.

On the syntactic level, the sentence was judged to be acceptable. On the semantic level it was unacceptable, and there was a high degree of meaning change.

The substitution of *sits* for *sets*, *roller* for *rollers*, *what* for *ran*, and *on* for *the* were then coded on the word level for correction, graphic and sound similarity, and grammatical function.

The following categories were coded for each sentence read:

1. Syntactic acceptability - whether the miscue or miscues resulted in a sentence which was syntactically acceptable within the context of the whole story.
2. Semantic acceptability - whether the miscue or miscues resulted in a sentence which was semantically acceptable within the context of the whole story.
3. Meaning change - whether the miscue or miscues resulted in substantial, minimal, or no meaning change within the context of the whole story.

The correction category was coded for each miscue produced:

Yes = the miscue was corrected.

Abandons correct = the reader produced the expected response and then changed it.

No = the miscue was not corrected.

Unsuccessful correction = the reader made more than one attempt but was not able to correct the miscue.

The following categories were coded for each word-level substitution miscue:

1. Graphic similarity - the degree to which the miscue was graphically similar to the *expected response* (the word in the text).
2. Sound similarity - the degree to which the miscue was similar in sound to the expected response.
3. Grammatical function - whether the miscue had the same grammatical function as the expected response.

Dialect: Phonological dialect, such as *acantin'* for *starting*, *apron* for *apron*, and *'apartment* for *apartment* were not considered miscues and were not coded.

As was mentioned earlier (p. 3), non-phonological Black dialect features were coded as dialect for the Black readers and any other readers who exhibited such features in their oral retellings. If there was no evidence of these features in the oral language of the readers, they were treated as non-dialect miscues. For example, the substitution of *ask* for *asked* would be coded as syntactically and semantically acceptable, with no meaning change. For other readers this substitution would be considered a non-dialect miscue, which might or might not have syntactic and semantic acceptability, depending upon the context, unless that reader also exhibited this substitution of the null form of the past tense ending in the retelling of the story.

Some substitutions occurred so frequently among all the children that they were considered dialect, either as a feature of a working-class dialect, a form of register, or a child-related dialect feature. Some examples are *luging* for *lying*, and *deal* for *ready*.

Eye dialect: Both stories 06 and 07 made use of repetition to indicate that the character was upset. Example: "S-Sorry I disturbed you," Maria stammered. ("Maria's Big Experiment", p. 56) Story 06 made use of a small amount of eye dialect, which is defined as the author's attempt to show features of a character's dialect or idiolect in writing. For example, one character in the story is an Italian American, and his speech is represented in eye dialect. Example: "You look-a okay to me," the old man said. ("The Best", p. 292) Difficulties with these features were not counted as miscues. As a matter of fact, the most common reading of the above sentence for the children in this study was the more contemporary expression, "You look A-OK to me," which would be syntactically and semantically acceptable on its own right.

Names: Substitution miscues on names were coded the first time they occurred and ignored thereafter. They were given full syntactic and semantic acceptability and were coded only to provide information about the degree of graphophonic similarity between the miscue and the name.

Multiple attempts: *Multiple attempts across texts* (word-for-word substitutions for words which occurred more than once in the story) were coded only the first time they appeared. They continued to be considered when dealing with the syntactic and semantic acceptability of the sentence in which they occurred and the degree of meaning change which resulted. Example: the word *skin* occurs twice in "The People Downstairs." One reader substituted *skin* for *skin* both times. The first occurrence of this miscue was counted and coded for graphic and sound similarity and grammatical function, and the sentence in which it occurred was considered syntactically acceptable but semantically unacceptable with a high degree of meaning change. The second time the miscue occurred, it was not coded but counted, and the sentence in which it occurred was considered syntactically acceptable but semantically unacceptable with a high degree of meaning change.

When multiple attempts on the same word occurred at one point in the text, the first attempt was coded on the word level, and the last attempt was considered on the sentence level. Example: One reader substituted *man*, then *workman* for *woman*. The word *man* was coded on the word level for graphic and sound similarity and grammatical function. The word *workman* was considered when determining the syntactic and semantic acceptability of the sentence and the degree of meaning change which resulted. This procedure was introduced with the short form of the RMI.

COMPUTER ANALYSIS

The coded miscues were keypunched and fed into a computer to obtain individual statistics for each subject. This combined data was then run through an SPSS (Statistical Package for the Social Studies) program for tests of statistical significance and correlations.

CHAPTER THREE
IN-DEPTH ANALYSIS OF ONE STORY AND TWO READERS

A CLOSE LOOK AT ONE STORY

One story, "The Pest" (06), seemed to be particularly successful in terms of the understanding the readers derived from it and its readability, as determined by the way the readers handled the language. Although the higher scores for this story are undoubtedly due in part to the greater proficiency of the readers, they are also judged to be the effect of the story. This story was read by 20 readers, the largest group in the study, and with a sample of that size one would expect that some of the readers would be less effective than others. In addition, those readers judged to be most proficient were given story 07, "Maria's Big Experiment". When compared to the mean retelling scores obtained by FT and NFT readers on story 07, the mean retelling score of both FT and NFT readers for story 06 is significantly higher, by a difference of 19.78 points.

In a comparison with the mean retelling scores for all the readers, both FT and NFT, reading all the stories except 06, the mean retelling score of story 06 is still significantly higher, with a difference of 13.55 points.

Of the seven stories in the study, story 06, which was taken from a fifth grade basal reader, ranks fifth in number of words per sentence, with an average of 9.9. Since readability formulas often use the average number of words per sentence as one criterion for determining the difficulty of the material, it is interesting that story 06 also had significantly higher scores than stories 01, 02, 03, and 04 in the categories of syntactic acceptability and minimal or no meaning change. These stories all average fewer words per sentence than story 06. The two stories which have higher averages of words per sentence, stories 05 and 07, have significantly lower scores in semantic acceptability and minimal and no meaning change, but are about equal to story 06 in syntactic acceptability. Clearly, the number of words per sentence does not of itself give a good indication of the difficulty of the material.

When the scores of all the readers in this study (except those who read O6) are combined and compared with the combined scores of the readers of story O6, the scores of story O6 indicate more proficient reading on almost every variable, although not all are statistically significant.

One statistically significant score is the lower number of miscues per hundred words (MPHW) produced by the readers of story O6 -- 6.4 as opposed to 9.1 for the other stories. This figure alone is not particularly meaningful (see discussion, p. 23). However, these readers also produced a higher percentage of insertions ($p < .01$) than the other readers. Since insertions are often the result of the reader's producing a different but equally acceptable surface structure, they can provide another indication of the effective processing of language. The following are examples of optional surface structures produced by insertions:

Excerpt from the reading of "The Pest" by a NFI reader:

"Where ^{are} you goin', Hector?"

Excerpt from the reading of "The Pest" by a FI reader:

"Oh, sure, Hector knew ^{that} the kid was lonely, what with his mother away working all day."

The readers of story O6 also scored significantly higher with regard to the substitution of words with different grammatical functions ($p < .004$), while the readers of all the other stories scored significantly higher with regard to words with *the* same grammatical function ($p < .02$). This fact in itself does not indicate that story O6 was more readable. However, the group who read story O6 also had a slightly higher score in syntactic acceptability, which indicates that their substitutions of words with different grammatical function were, for the most part, either acceptable or corrected. Further evidence of the more effective processing of syntactic information by the group reading story O6 is offered by their significantly lower percentage of substitutions of questionable grammatical function ($p < .03$). Questionable grammatical function is a category used when the researcher can make no decision as to the syntactic structure the reader is trying for, or when the substitution could serve one of two functions, but it is impossible to say which, due to the fact that the structure is never completed. An example follows:

Excerpt from the reading of "The People Downstairs" by a NFT reader:

"It would be only neighborly since ^{neighborly nice} ~~we've~~ ^{heard} heard he's in bed."

(The function of *we've* could be that of a noun or a verb. Since there is no clear grammatical structure, the function of *we've* is coded as questionable.)

The higher syntactical acceptability score, the lower percentage of substitutions with questionable grammatical function, and the smaller number of MPHWS produce a pattern which suggests that the story had highly predictable language for these readers.

The pattern which emerges from the readers of story 06, as indicated by the higher semantic acceptability scores, retelling scores and percentage of miscues for which there was little or no meaning change, suggests that the story resulted in a high degree of comprehension for the readers.

It is not altogether clear why the readers of story 06 demonstrated more effective reading strategies or produced higher retelling scores. Perhaps it is due in part to the urban, contemporary setting which makes the story relevant, or the colloquial nature of the language, which makes it more predictable. Perhaps it is due to the fact that it presents a situation with which children can easily identify -- that of a younger boy who is considered a pest by an older boy. Children often experience the burden of responsibility for a younger brother or sister, or are in the position of being considered a pest by a much-admired older child.

Without question, the redundancy provided in the story made it more understandable (as will be discussed in detail later in this report). And the plot is complex enough so that the children had a great deal to think about and retell.

The emotions which the story touched in the readers and their reactions to the feelings of the characters were expressed well by one reader:

Excerpt from the retelling of "The Pest" by a NFT reader:

Researcher: Tell me more about how he felt about his mom.

Subject: He cared about her. He cared about her 'cause he loved her. He didn't want nothing to happen to her.

Subject: 'Cause I would do the same thing he did if anybody tripped my mother and she's be in hospital.

There are, undoubtedly, other contributing factors in addition to those mentioned here, and such a phenomenon deserves further investigation.

If the factors which make this story more readable and relevant for these children can be identified, the result could be better reading materials for all children.

A CLOSE LOOK AT THE STRATEGIES OF TWO READERS

One of the usual criteria for determining the proficiency of readers is the grade level at which they are reading. It is usually assumed that a child reading below grade level is a poor reader. It must be understood, however, that because of the prior knowledge necessary for reading any materials, the reader may be able to read some material at a much higher level than other materials, and that the grade level alone gives no information about the strategies used by a particular reader or the effectiveness of those strategies.

Readers can be several levels below the expected level for their grade and yet be using *effective strategies* (those which result in semantically acceptable renderings of the text). If encouraged, these strategies will result in rapid growth in their ability to handle more and more difficult materials, providing that the readers' prior knowledge and background are equivalent to the task.

A second criterion usually related to reading proficiency is the number of errors which a reader makes. However, reading tests do not look at these "errors" in terms of their acceptability within the story and whether or not they are corrected. The number of errors alone gives no information about the readers' strategies.

Examples of the use of effective and ineffective strategies as determined by a depth study using miscue analysis are provided by a FT reader (002) reading story 07 from a sixth grade basal, and a NFT reader (150), reading story 02 from a first grade basal. Both readers are boys, aged nine years, four months at the time the reading sample was taken. The teacher of FT002 rated him as an average reader, while NFT150 was rated as one of the least effective readers. Table 4 indicates some of the percentages assigned to the reading of each boy.

In terms of *syntactic acceptability* (the percentage of sentences which were grammatically acceptable or corrected), both readers are high, 002 scoring above and 150 scoring slightly below the population mean of 82.79. Both readers also have a high percentage of miscues which have the same grammatical function as the expected response (ER). The following are examples of sentences which are syntactically acceptable and which retain the grammatical function of the ER: **24**

TABLE 4
SOME PERCENTAGES SCORED BY TWO READERS

Criterion	FT002	NFT150
Syntactically Acceptable Sentences	97.62	80.00
Same Grammatical Function	66.67	64.71
Semantically Acceptable Sentences	91.67	63.33
Little or No Meaning Change	96.43	76.67
Corrected	40.00	24.14
Unsuccessful Correction	0	13.79
Residual Score	8.33	36.67
Non-Words	20.00	0
Non-Words, Corrected	40.00	-
High Graphic Similarity of Non-Words	100.00	-
High Sound Similarity of Non-Words	100.00	-
High Graphic Similarity of All Miscues	80.95	80.00
High Sound Similarity of All Miscues	76.19	55.00 (Some-35.00)
MPHW	2.78	12.95
Retelling Score	54	37

Excerpt from the reading of "Presents Don't Walk Away" by 150:

That was

"What is it?" asked Mr. Bell.

Excerpt from the reading of "Maria's Big Experiment" by 002:

throbbled
Maria's heart throbbled.

Although 002 has produced a nonword, he has retained the verb inflection, so it can be considered a verb.

Semantic acceptability (the percentage of sentences which were acceptable in terms of meaning or corrected) is also high for both readers, but lower than syntactic acceptability. This will always be true because readers often produce sentences which are syntactically acceptable but semantically unacceptable (as in the above example). No sentences in this study were coded as semantically acceptable but syntactically unacceptable due to the restriction in the coding system which is based on the view that semantic acceptability is dependent upon syntactic acceptability.

This restriction does not apply to the meaning change category, however, and the percentages of miscues which resulted in minimal or no meaning change almost equal syntactic acceptability for both readers. Examples of semantically acceptable sentences before correction follow:

Reader 150:

Bells Mr. Bell came up the walk on this his way to work.

Reader 002:

This was the idea she needed to make her she'd experiments experiment more exciting!

With miscues like these, it would be inefficient for the reader to correct. The meaning of the sentences has not been significantly altered. *Inefficient strategies* are characterized by unnecessary perseveration. The correction percentage, therefore, must be examined in connection with the *residual score*, which is the percentage of sentences which were semantically unacceptable and not corrected. *Effective readers* make use of the correction strategy, but *efficient readers* correct only when their miscues lose or significantly alter the meaning of the sentence.

The residual score indicates that the miscues of 002 were unacceptable and not corrected only a small percentage of the time. Combined with the correction percentage, it indicates that this reader produced many sentences which were semantically acceptable without having to be corrected. An example of this reader's effective use of correction follows:

The correct pronunciation or mispronunciation of a word is in itself not always an indication of whether that word has been understood. For example, 002 produced a nonword for *ingenuity*, but in the unaided retelling he said, "And Dr. Snow interrupted in and said that an idea can come from anywhere, but it's the way it's *orange*, the way it comes out is the way it really happened." The reader's use of *orange* for *ingenuity* is perhaps not the precise hearing of the word in this context, but it shows that he had a general understanding of the concept, even though he could not pronounce the word.

This same reader corrected the nonword he produced for *ingrossed*, pronouncing it correctly. However, when he was asked after the retelling to find any word he didn't understand in the story, he was obviously looking for *ingrossed* when he said, "It was something looked like sorta 'gross' or something like that." This reader realized that he didn't understand the word, even though he happened to correct it to the proper pronunciation, which he may have heard before.

He also did not understand the meaning of *hydroponics*, for which he substituted a nonword, but this is not surprising, as the word was only briefly defined in the story as "growing things in chemicals rather than in soil," and there were no other clues in the rest of the story as to the meaning of the word. Since an understanding of that concept was not necessary for an understanding of the story, it is not particularly important that the reader did not grasp the concept. Important concepts are explained and defined and repeat upon again and again by good authors when such concepts are necessary for the understanding of the story.

The percentages of graphic and sound similarities are high for both readers, but for reader 002 this can be explained primarily by the 100% graphic and sound similarity of the nonwords he produced. This is not of grave concern because the reader had no other cueing system to draw from when he encountered words which were beyond his conceptual background and for which little or no information was provided in the story. In two instances, however, his grammatical knowledge was of no help, and he produced nonwords which were not even in the same grammatical function as the real words. This is probably the explanation for the relatively low score for the same grammatical function category. One of these nonwords was corrected, and the other

In this example the reader abandons the correct word *did* in favor of one which he believed to be more similar in graphics and sound. He has focused too narrowly on the print and has abandoned meaning. The reader is making use of his grammatical sense, however, as *died* is a verb which would more frequently end a sentence than the verb *did*. One must always consider the familiarity of the language to the particular child when making judgments about the reading.

The number of miscues which each reader produced per hundred words of text (MPHW) is deliberately put at the end of this discussion of the reading. It is to be hoped that by now the point has been made: *It is not the number of miscues but the quality of the miscues which is most important in the analysis of the proficiency of a given reader.* It happens to be true that proficient readers do not generally make a great many miscues, but this is not because proficient readers look carefully at every word; it is because they are better predictors of what the author is going to say next. They have understood what the author has said, and they are predicting what is to come.

It is possible for a reader to make a large number of miscues and have a better understanding of the material than a reader who has made fewer miscues. For example, FT reader 033 has a MPHW score of 5.98, which is considerably lower than HFT 150's score of 12.95, and yet she has a retelling score of 30, as compared to 150's score of 37.

Reader 002 is considered to be a more proficient (effective and efficient -- Goodman, 1973) reader than 150, not simply because he produced fewer miscues, or because he read the sixth grade story, but because of his high percentage of semantically and syntactically acceptable miscues which, for the most part, resulted in little or no meaning change, and because he was able to retell a greater percentage of the surface information of the story (as indicated by the retelling scores), and volunteered a personal response to the story.

Reader 150 is less proficient, but he is using some effective strategies. He, too, has produced a high percentage of syntactically and semantically acceptable sentences, with a high percentage of sentences with minimal or no meaning change. Although he produced no nonwords, his residual score is high and his correction score is low, and he needs to make more effective and efficient use of the correction strategy. His retelling

score indicates that he is starting to become effective in this area, but he did not retell, or did not choose to contribute, as much of the surface information as did most of the other readers in this study. However, he did produce a plot statement, which indicates that he was able to pull together the ideas of the story, and two misconceptions, which provide evidence of his interaction with the story.

This in-depth description of two readers not only provides information about them as individuals but also contributes insights into the reading process and how it works for all readers:

All readers produce miscues because all readers, to varying degrees, make predictions about what will come next in the text on the basis of the syntactic and semantic knowledge they possess. They then seek to confirm these predictions by sampling from the three cueing systems. The proficient reader corrects those miscues which do not fit the structure of the sentence or the meaning that has been predicted. When miscues occur which do not interfere with meaning, the reader often continues reading without realizing that a miscue has occurred (Goodman, in press) as in the examples on p. 19.

With this view of reading in mind, the reader of this report now possesses some of the conceptual background necessary to interact with the information presented in the next chapter.

CHAPTER FOUR
RESULTS: MISCUE DATA - GROUP ANALYSIS

The primary objectives of this study, as stated on p. 3, are to identify the similarities between the Follow Through and Non-Follow Through groups and the differences between the groups which may be the result of instruction. The oral reading miscues of the FT and NFT readers were coded and subjected to statistical analysis to determine what these differences and similarities might be.

This chapter will begin with the identification of differences, followed by a discussion of the similarities.

SIGNIFICANT DIFFERENCES

Correction Strategies

When the scores of all the FT readers for all the stories are combined and compared to the combined scores of all the NFT readers for all the stories, statistically significant differences become evident only in the correction strategies used by the two groups (see Figure 1).

The FT group has a smaller percentage of unsuccessful corrections than the NFT group ($p < .018$). The FT group also has a larger percentage of miscues which were not corrected ($p < .017$). Since the percentages of syntactic and semantic acceptability scored by the two groups are about equal, neither group appears to have demonstrated a significantly more effective strategy than the other.

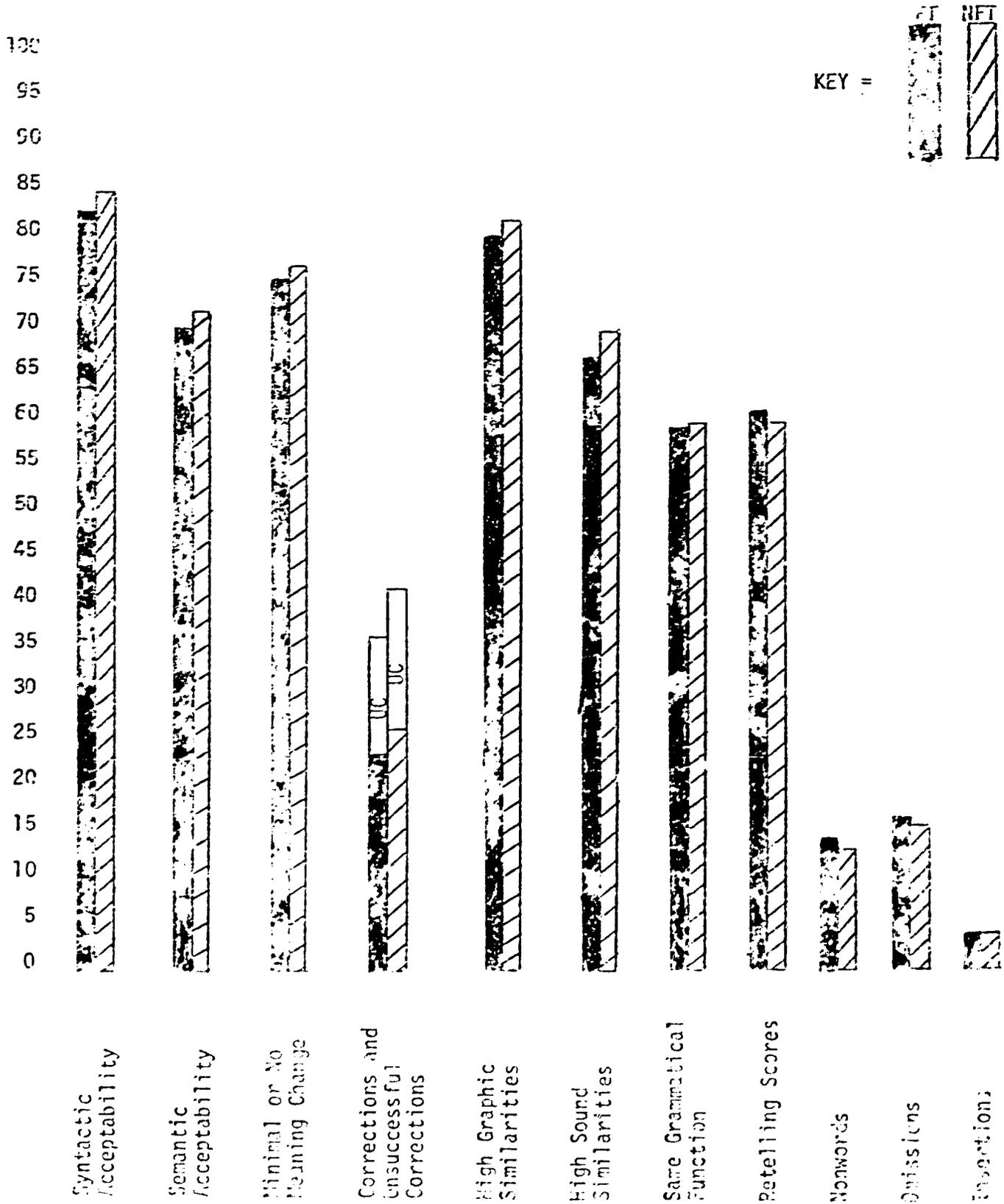
However, with regard to the efficiency of their strategies, there is a slight difference. The NFT readers exhibit a more pronounced tendency to perseverate, as exemplified by their multiple attempts at one point in the text. One example of this perseveration on the part of a NFT reader appears on p. 20; another example of perseveration follows:

Excerpt from the reading of "The Monster" by a FT reader:

7. be silly
6 be
5 Dashed bit
4. Din-
3 D-
2 Don't
1 Don't
"Don't be silly," she said.

(C) (AC) (RS) (C)

FIGURE 1
FT and NFT Readers
MEAN SCORES FOR SOME VARIABLES



A hand count was made of the number of readers who made more than two attempts at one point in the text, two attempts being a miscue and a correction, a repetition of the expected response, or two unsuccessful attempts -- strategies which were not considered to be inefficient. The number of attempts made by these readers was also counted. Some of the readers in this study made as many as nine attempts at a single word. Of the 36 FT readers, 69% had no multiple attempts, while 59% of the 37 NFT readers had no multiple attempts. The average number of multiple attempts for the FT readers was 3.17, and the average number for the NFT readers was 3.41.

Readers who spend a great deal of time trying to correct a word or phrase are not using efficient strategies. If they have derived no meaning from the passage after two attempts, they should continue reading and expect that the text will provide more clues to the meaning if that concept is important to the story (Smith, 1975). For example, in "The Pest," one concept which is important to the story is that of a cellar. The redundancy with regard to that concept enabled most readers to understand it. The author tells the reader through the context of the story that the cellar is something that is full of junk and must be cleaned out, that a door and narrow, steep stairs lead down to it, and that it has a ceiling and a floor. In addition to this information, the author also refers to the cellar as a basement.

The following excerpts from the reading and retelling of a NFT reader serve as a good example of how a concept is developed through the story:

Sent. 33: It wasn't much of a job -- just cleaning out a

2 clearer

uc
1. clear
cellar.

Sent. 44: The old man opened the door to the cellar.

clearer

uc
2. clear
1. clear

Sent. 48: That cellar was an awful sight

Sent. 53: It sometimes seemed to Hector that the more trash he took out, the more was waiting for him when he got back to the cellar.

(The reader made no miscues.)

Excerpt from the retelling of the same reader:

Subject: And then when he was cleaning the basement stairs something bit him on the leg, and he said, 'Maybe it's a rat! '

Researcher: And you know what a cellar is, don't you?

Subject: It's something like a basement.

The above reader has used both effective and efficient strategies for obtaining meaning.

The significantly larger percentage of uncorrected miscues, the significantly smaller percentage of unsuccessful attempts, and the slightly smaller percentage of perseveration for the FT group, combined with the equivalent semantic acceptability percentages for both groups, indicate that FT readers are using the strategy of guessing at unknown words and then continuing to read, which is an efficient strategy, to a greater extent than the NFT readers. This strategy reflects reading instruction which does not focus on precise reading as its goal.

Significant Differences: Breakdown by Stories

The FT and NFT groups were also divided into various sub-groups to discover specifically where the differences could be found.

Stories 01, 02, and 03. Each story was analyzed separately for a comparison of the FT and NFT groups, with the exception of stories 01, 02, and 03. Because of the small numbers of readers for these stories, the scores were combined to create an N of five FT and seven NFT readers. Comparison of the two groups reading these three stories revealed no significant differences between them.

Story 04. Analysis of story 04 reveals a significantly higher percentage of high graphic ($p < .047$) and sound similarity ($p < .046$) in the reading of the NFT group. This difference can be attributed partly to a larger percentage of dialect on the part of the NFT readers. While both the readers in the NFT group exhibited divergent dialect features, only two of the eight FT readers exhibited divergent dialect features. Dialect substitution miscues will always be high in graphic and sound similarity, as demonstrated by the following example of dialect miscues from the reading of the two NFT readers:

monster (d)
monsters

noise (d)
noises

you (d)
"But you're wrong."

With the exclusion of dialect miscues, over half the miscues with high graphic and sound similarity produced by these NFT readers were semantically unacceptable before correction. Some were corrected and some were left unacceptable.

Excerpt from the reading of "The Monster" by two NFT readers:

But ^(c)beat I'm on
^ "I bet you think I sleep in this house at night."

"I go around looking in windows and ^(uc)scraping scaring people."

High graphic and sound similarities are coded if the miscue resembles the ER in at least two parts. For example, *scraping* resembles *scaring* both graphically and phonically at the beginning and at the end of the word.

The substitution of *scraping* for *scaring* persisted for this reader through the whole story, and her confusion was apparent in the retelling when she used the two terms interchangeably:

Subject: He didn't want her to watch no monster shows. And he scared her on the telephone. And she didn't want to watch what he watched. And he scraped her. He scared her at school. He scared her at the window. He came in the house. He scraped her.

Some words which had little or no graphic or sound similarity to the ER were semantically acceptable for these two NFT readers, as in the following example:

So Bill thought of a way to make his younger sister stop
^(uc) 2. looking monster pictures
1. looking mens- shows.
liking monster

The substitution of *pictures* for *shows* is a high quality miscue (semantically acceptable), even though it bears only slight graphic and sound resemblance to the ER.

^(uc) 2. silly
1. sick
"You're crazy!"

Although it has little graphic or sound similarity to the ER, the substitution of *silly* is a good miscue in this context.

Graphic and sound similarity scores alone do not provide a clear picture of what the reader is doing. High graphic and sound similarity may be the result of the readers' use of their own dialect, which is an indication that they are getting meaning from their reading, or it can mean that they are producing nonwords and other semantically unacceptable miscues.

Story 05. The only significant differences between the groups for story 05 are in graphic similarity. The FT group has a significantly higher percentage of miscues which have high graphic similarity ($p < .043$), and the NFT group has a significantly higher percentage of miscues with some graphic similarity ($p < .043$). Again, the high graphic similarity is partly attributable to dialect. None of the NFT readers for this story demonstrated evidence of divergent dialect influence in their reading, while three of the FT readers exhibited divergent dialect influence.

Another reason for the larger percentage of high graphic similarity for the FT readers is that there are many names in this story, for which the FT readers substituted miscues with high graphic similarity more often than did the NFT group. Unfamiliar names are often difficult to pronounce, and the reader's best strategy is to decide on a name which graphically resembles the one in the story and use it consistently. Following are examples of this strategy taken from the reading of the FT group:

<u>Observed Response:</u>	Joanny	Shena	Franklins	George
<u>Expected Response:</u>	Joey	Sherrill	Flannigans	Georgie

Excluding dialect miscues and names, over half the miscues of the FT readers with high graphic similarity were unacceptable before correction. And, as with the NFT readers of story 04, not all were corrected. Once again, however, the groups were similar with regard to semantic and syntactic acceptability.

Most miscues have at least some graphic similarity to the ER, and both groups for story 05 have small percentages in the category of no graphic similarity. Since the FT group has the largest percentage of high graphic similarity, and all the miscues are predominantly in the "high" or "some" categories, it is then to be expected that the NFT group would have the significantly higher percentage of miscues with some graphic similarity.

Story 06. In story 06 the NFT group has a higher percentage of corrected nonwords than does the FT group ($p < .005$). Nonwords are generally judged to be unacceptable, as they have no meaning. However, readers have only two alternatives when encountering words for which they have no experiential background: they can omit the word or substitute a nonword. The substitution of a nonword which retains the grammatical function of the ER is preferable to an omission of the word, because the nonword serves as a place-holder and keeps the grammatical structure intact so that the rest of the sentence can be understood.

The FT group produced fewer nonwords -- 21 as compared to the 32 nonwords produced by the NFT group. Every reader in both groups produced at least one nonword. Eight of the NFT readers corrected at least one nonword; none of the FT readers corrected any nonwords. Examples of nonwords (\$) follow:

Excerpt from the reading of "The Pest" by a NFT reader:

"But Mom didn't hold a ^{uc} ^{2. \$}grudge ^{1. rouge}.

Excerpt from the reading of "The Pest" by a FT reader:

"And all because some ^C \$idiot had left a skate on the apartment house stairs."

Each group scored about the same percentage of unsuccessful corrections of nonwords, and only one reader (NFT) abandoned the ER to substitute a nonword.

If the corrected nonwords of the NFT group are subtracted from their total of 32 nonwords, it can be seen that the two groups (with the same number of readers) produced the same number of nonwords which were not successfully corrected. The semantic acceptability percentages show no significant differences between the groups.

The word *idiot* in this story produced the largest number of nonwords. Eight NFT and four FT readers substituted a nonword for *idiot*. The word was omitted by one NFT reader and two FT readers. In addition, three FT readers substituted real words. These substitutions are shown below:

Observed Responses: (adult, idiots, knothead;
Expected Response: And all because some idiot had left a skate on the apartment house stairs.

Story 07. The NFT group has a significantly higher percentage of omissions in this story ($p < .030$). The following table (Table 5) shows the breakdown of the omissions for the groups:

TABLE 5
OMISSIONS OF FT AND NFT GROUPS - STORY 07

	FT	NFT
Semantically Acceptable/Not Corrected	50%	35%
Not Semantically Acceptable/Not Corrected	*16.67%	32%
Semantically Acceptable/Corrected	*16.67%	15%
Not Semantically Acceptable/Corrected	*16.67%	15%
Omission of Whole Line	0	* 3%

*Only one case

As can be seen in Table 5, the highest percentage of omissions occurred in the category of semantically acceptable and not corrected for both groups. This percentage gives an indication of the efficiency of the reading. Miscues which are semantically acceptable, as in the following examples, should not be corrected:

Excerpt from the reading of "Maria's Big Experiment" by a NFT reader:

"Maria (then) withheld one of these elements from each of the other plants."

Excerpt from the reading of "Maria's Big Experiment" by a FT reader:

"Have you ever thought what would happen to a plant if you withheld sun from just a few (of the) buds?"

The second highest category for the NFT group was the percentage of omissions which were not semantically acceptable and not corrected. This percentage gives an indication of the effectiveness of the reading. Only 15% of the semantically unacceptable omission miscues of the NFT group were corrected. An example follows:

Excerpt from the reading of a NFT reader:

(Want) to come along, Maria?"

This miscue results in a syntactically unacceptable sentence and, therefore, a semantically unacceptable one.

One of the NFT reader's omissions was the omission of a whole line. This phenomenon will be discussed later in the report.

Two-thirds of the omissions of the NFT group were not successfully corrected. Of these, about half were semantically unacceptable and should have been corrected. These children seemed to prefer to omit

words rather than make guesses, and this results from a too-careful focus on letter-sound relationships (Biemiller, 1970).

Significant Differences: Breakdown by Sex

Girls. No significant differences emerge with regard to the reading of the FT girls for all stories as compared to the reading of all stories by the NFT girls.

Boys. Comparison of the FT boys with the NFT boys for all stories reveals only one significant difference: the FT boys have a higher percentage of uncorrected miscues ($p < .03$) than the NFT boys. Because there are no significant differences between the groups in syntactic or semantic acceptability, the correction strategy of the FT group again appears to have been as effective as that of the NFT group and more efficient (see prior discussion, p. 27).

Significant Differences: Breakdown by Teacher Estimate

Prior to choosing the children for the study, the researcher asked the teachers to list their most effective readers and their least effective readers. Those children not listed were considered to be in the average range. From the list of most effective readers, teachers were then asked to indicate which children they would consider to be superior. None of the FT teachers rated any of their children as superior readers.

Equal numbers of boys and girls were then randomly chosen from each of the categories of teacher estimates in FT and NFT classrooms. These teacher estimates were used as a means of determining the story which each child would read. However, the researcher sometimes had to move the children to a higher-level story if they did not make at least 25 miscues, or back to a lower-level story if they were overly frustrated by the material.

For this study a comparison was made between the FT and NFT readers in each category of teacher estimates.

Category 1: Least Effective Readers. No significant differences exist between the FT and NFT readers who were classified as least effective by teacher estimate.

Category 2: Average Readers. One significant difference exists between FT and NFT readers classified as average: the NFT readers produced a higher percentage of unsuccessful corrections ($p < .009$) than the FT readers,

once again, the majority of the NFI readers, with the majority effective as determined by teacher estimates and academic acceptability scores, were not as effective in their reading strategies.

Category 3 - 10 of the 100 teachers (10%) who had significant differences between the FI and NFI students were classified as effective readers by teacher estimate.

Category 4 - 10 of the 100 teachers (10%) were classified as superior by teacher estimate.

Statistical tests of the data also showed the scores obtained by the FI group rated as superior and all the FI and NFI readers rated as effective revealed that the group rated as effective had a significantly higher percentage of errors of dialect features than the NFI "superior" readers ($p < .05$), and the group rated as effective had a higher number of MPW than the superior group ($p < .05$). The "effective" group also had a lower percentage of meaning change than the "superior" group ($p < .05$), and the difference in minimal and no meaning change, which is usually considered to be a null result, reveals no significant differences in the reading group.

It is interesting that there is only a slight difference between the groups in the teacher's opinion with regard to the effectiveness of the teachers, but that with regard to their divergent dialect features, the FI group is more confident in their opinion. As stated earlier, dialect features are to be considered in terms of strength, and MPW must be examined in terms of frequency as well as variety. If teachers wish evidence of the effectiveness of their students in a relative light, they will not miss the results of this study.

It is interesting to note that the 100 teachers who were the least effective FI teachers were also the least effective in teacher ability. But the fact remains that the majority of the 100 teachers who were the most effective in reading strategies were also the most effective in teacher ability. The FI teacher who ranked as superior in reading strategies was ranked as superior in teacher ability. The significant differences between the FI and NFI students were not significant in teacher estimate.

It is interesting to note that the 100 teachers who were the most effective in reading strategies were also the most effective in teacher ability. The FI teacher who ranked as superior in reading strategies was ranked as superior in teacher ability. The significant differences between the FI and NFI

TABLE 6

MEAN SCORES OF FT AND NFT GROUPS ON SOME VARIABLES

	Syntactic Acceptability	Semantic Acceptability	Minimal or No Meaning Change	Dialect	Miscues per Hundred Words	Omissions	Uncorrected Omissions/Semantically Acceptable	Insertions	Uncorrected Insertions/Semantically Acceptable	Corrections	Abandon Correct/Syntactically, Semantically Acceptable, Minimal or No Meaning Change	Not Corrected/Syntactically, Semantically Acceptable, Minimal or No Meaning Change	Unsuccessful Correction/Syntactically, Semantically Acceptable, Minimal or No Meaning Change
FT MEAN	82.01	69.35	74.72	1.33	8.09	15.33	24.30	3.67	49.54	23.61	22.22	17.37	9.01
NFT MEAN	85.57	70.45	75.84	1.30	8.62	14.05	19.66	3.68	43.33	25.83	16.67	13.81	10.65
T SCORE	1.13	-.29	-.34	.07	-.46	.50	.63	-.01	.44	-.87	.29	1.30	-.38
SIGNIFICANCE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MEANS	82.78	69.91	75.29	1.32	8.36	14.69	21.88	3.67	46.27	24.74	19.45	15.59	9.84

Excerpt from the reading of "The Pest" by a FT reader:

"No one left the skate ^{there is no} there on purpose."

The resulting sentence is neither syntactically nor semantically acceptable. The reader read the two clauses without any terminal intonation between them.

The FT group produced an average of 1.82 complex miscues per reader, while the NFT group produced an average of 1.35. The difference is not statistically significant. Both groups produced about half semantically-acceptable and half semantically-unacceptable complex miscues.

Thus, both groups produced a high percentage of sentences which were syntactically and semantically acceptable within the structure of the story, and both groups showed evidence of processing language beyond the word level.

Minimal or No Meaning Change

For both groups approximately three-fourths of their miscues resulted in either minimal or no meaning change, or were corrected.

The meaning change category is not tied to the syntactic and semantic acceptability categories. That is, it is possible for a sentence to be syntactically and semantically unacceptable and yet have minimal meaning change. The following sentences are syntactically and semantically unacceptable (semantically unacceptable because they cannot be otherwise if they are syntactically unacceptable), but have minimal meaning change:

Excerpt from the reading of "Maria's Big Experiment" by a FT reader:

"Diane's ^{plant} plants were flourishing in wire baskets on a long glass table."

Excerpt from the reading of "The People Downstairs" by a FT reader:

"The sun was bright on the roof, and they had a good time."

The category of minimal or no meaning change is higher than semantic acceptability for both groups and indicates that there was only a small percentage of meaning loss for these readers.

Dialect

The percentages of dialect miscues for both groups were figured only for the readers who exhibited divergent dialect features in their reading. As can be seen in Table 6, there is very little difference between the groups with respect to dialect.

For children with divergent dialect features in their speech, the appearance of such features in their reading is evidence that the children are making sense of what they read and are generating their own surface structure, which has the same deep structure as the standard language (Goodman and Buck, 1973). Therefore, it should be regarded as evidence of strength when these children's reading contains dialect features evident in their oral language. Teachers who try to change the children's dialect during reading instruction are blocking the way for the children to receive meaning from what they read.

Correction. One indication of self-consciousness about dialect in reading is the correction of the dialect. A hand count was made of the number of times the children with divergent dialect features in their speech and reading actually corrected their own dialect. Example: ^(c)call ^(d)called

In the FT group fourteen children had divergent dialect features in their speech and their reading. Six of these children (43%) corrected their dialect at least once. The average number of corrections for these children was 1.67 corrections per child.

In the NFT group, nine children had divergent dialect features in their speech and reading. Five of these children (56%) corrected their dialect at least once. The average number of corrections for these children was 1.00 corrections per child.

Supercorrect Dialect. A phenomenon closely related to the correction of dialect is the production of supercorrect dialect. This term refers to the miscue which has a double inflection at the end. Example: walkeded ^(d)
walked

This type of miscue has the same cause as the correction of dialect: the children have been made to feel uncomfortable about the dialect features they produce in reading. In order to make sure that they have included the standard ending, they add a second -ed.

Of the fourteen FT children with divergent dialects, four (29%) produced supercorrect versions, with an average of 1.5 occurrences per child.

Of the nine NFT children with divergent dialects, only two (22%) produced supercorrect versions, with an average of 1.5 occurrences per child.

These figures have more meaning if combined with the figures for correction of dialect to discover what percentage of the children in each group showed one type or the other of interference from instruction.

Of the 14 FT children with divergent dialects, 64% produced one or both types of dialect miscues. Of the nine NFT children, 78% produced one or both types. The FT children averaged 1.78 miscues of these two types, and the NFT children had an average of 1.14.

While the FT group produced more dialect-corrected and super-correct miscues per reader than the NFT group, a slightly larger percentage of the NFT group actually showed evidence of dialect interference. Both groups provide information about attitudes toward dialect which may have been the negative result of instruction. The question of whether a child's dialect should or should not be changed is not the issue here. The point is that, if the teacher feels a dialect change should occur, the child's oral reading is not the place to attempt to effect such a change.

Miscues per Hundred Words

One of the usual measures of reading proficiency, as discussed in Chapter Three, is the number of errors which a reader produces. In miscue analysis the quality of the deviations from the print is considered more important than the quantity. In addition, many phenomena which are regarded as errors in other types of reading analyses are not considered to be miscues. The following phenomena are not coded as miscues:

1. Phonological dialect (e.g., 'stoppin'' for stopping)
2. ~~Partial words~~ (a part of a word which is abandoned before the whole word is uttered) e.g. 
3. Repeated miscues on the same expected response across the text (coded the first time only)
4. Repetitions of words
5. Pauses
6. ~~Non-dialectal~~ (a slight phonological change in the ER resulting from a slip of the tongue)

The number of non-dialect miscues which the reader produces is divided by the number of words read in the passage (the part of the story which includes the first 25 non-dialect miscues) and multiplied by 100 to obtain the number of miscues produced per hundred words of text (MPHW). As was pointed out in the preceding chapter, this figure alone is not a reliable indication of the proficiency of the reading but is viewed as one of several measures which, when combined, produce a pattern which gives information about the effectiveness of the reading.

Generally speaking, proficient readers do not make a great many miscues when the concept load of the material is not too heavy, when they are familiar with the author's style of writing, and when the subject is within their background of knowledge and experience (Goodman, 1973).

The readers in this study produced an average number of MPHW of 8.36, which is below the mean of 10.20 MPHW scored by the average dialect readers in Goodman's latest study (Goodman, in press), but above the 5.00 MPHW which the high readers scored in a prior study (Goodman, 1973).

However, mean scores do not always tell the whole story. A comparison of the ranges of the two groups shows some differences.

TABLE 7
MEANS AND RANGES OF MPHW

	MEAN	RANGE
FT	8.09	2.78 - 19.08
NFT	8.62	1.85 - 30.49

Three NFT readers have a MPHW score above the 19.08 extreme of the FT range. Table 8 below shows the MPHW score and the scores on comprehension variables for these three readers.

TABLE 8
MPHW SCORES AND SCORES ON COMPREHENSION VARIABLES
FOR THREE NFT READERS

Reader	MPHW	Semantic Acceptability	Minimal or No Meaning Change	Retelling Score
NFT 067	30.49	32.39	41.18	50
NFT 156	20.49	62.50	66.67	41
NFT 184	19.23	25.00	37.50	46
Group Means	8.358	69.912	75.288	60.014

As the above table shows, the three readers with the highest MPHW also score below the group means on all the comprehension variables.

The scores for semantic acceptability and minimal or no meaning change are not a great deal below the mean for NFT 156, but she has the lowest retelling score of the three (although not the lowest retelling score in the study).

Reader 184 is interesting because her syntactic acceptability score is 50.00, 25 points higher than her semantic acceptability score. She also has a high percentage of miscues with the same grammatical function as the ER: 72.73. This reader is processing language predominantly on the syntactic level with little focus on meaning and a great deal of focus on the graphics (her score in high graphic similarity is 72.73)

These three readers seem to validate the conclusion that a large number of MPHW indicates less proficient reading. However, it is obvious that readers cannot be ranked on the basis of their MPHW alone.

Omissions

Omission of Whole Lines. Omission miscues can involve one word, several words, or even a whole line or several lines of the material. One indication of whether readers are concentrating on the meaning of the story is the way they handle the omission of whole lines. Occasionally the reader's eyes will move ahead to the text two lines below the one that was just read. When this happens, the proficient reader will regress and correct when this line does not appear to be related to the one read before it. Sometimes the omission of a line results in no loss of meaning, as when the line contains one complete sentence which is not particularly important to the story, and in that event, the reader will probably not realize that a line has been omitted.

The following example is of an omission which resulted in a syntactically acceptable but semantically unacceptable reading:

Excerpt from the reading of "The Pest" by a FT reader:

"But Hector couldn't forget that easily, especially when he remembered how Mom had suffered, how tired she got just living there. That's why he wanted to buy her the radio in Reilly's window."

Following is an example of an omission which resulted in syntactically and semantically acceptable reading:

Excerpt from the reading of "The Voice from the Deep" by a NFT reader:

"They saw a man inside the truck put a big box on the rollers. The box slid ^I along the rollers, making a loud noise.

It slid over the sidewalk and down into the cellar."

A hand count was made of the number of times a whole line or more than one line was omitted. Nine FT and seven NFT readers omitted lines, with 21% of the FT readers' line omissions and 44% of the NFT readers' line omissions being semantically acceptable or corrected.

The difference between these percentages is not statistically significant. However, it can be said that the seven NFT readers who omitted whole lines produced slightly more semantically acceptable readings than did the nine FT readers who omitted lines.

Instruction for these children in both groups should focus on meaning of the sentences produced in oral reading.

Insertions

Insertion miscues were made by 44% of the FT readers and 54% of the NFT readers, a non-significant difference. Nor is there any difference between the groups with regard to the number of insertion miscues.

Peripheral-Field Influence on Insertions. However, there is a significant difference between the groups with regard to insertions of words which were present in the *peripheral field*, the area around the ER. In prior miscue studies (Goodman, 1973 and in press), the words on the two lines above and below the ER were searched by computer to discover what percentage of miscues were influenced by the peripheral field. [For this study no such computer search was made, but a hand count of PF-influenced insertion miscues revealed that 68% of the FT readers' miscues appeared in the peripheral field and 35% of the NFT group's miscues were also in the peripheral field ($z = 3.00$; $p < .05$)].

Following is an example of insertions not influenced by the PF:

Excerpt from the reading of "The Monster" by a FT reader:

"Monster Malvo!" Sandra laughed.

"You're crazy!" she is

"No, you're crazy," A said, Bill "I bet you think I sleep in this nouse at night."

Following are examples of insertions which appear in the PF:

Excerpt from the reading of "Presents Don't Walk Away" by a FT reader:

Pat sat down on the steps.

She didn't want to play.

Mr. Bell came up the walk
on his way ^{down} to work.

Excerpt from the reading of "The Pest" by a FT reader:

Can I go with you?

Can I go?

Can I go huh?

With the exception of five insertion miscues, all were function words, such as *the*, *to*, *for*, etc., which occur frequently in English, and it could be merely coincidence that they appeared in the PF. Therefore, the differences between the groups with regard to PF-influenced insertion miscues was not considered to be important.

Insertions and Insertions

Generally speaking, insertion miscues tend to be semantically acceptable more often than do omission miscues, and this assumption is borne out by the figures in Table 6.

The mean percentage (for the two groups) of insertions which were not corrected but semantically acceptable (46.27) is higher than the mean percentage (for the groups) of uncorrected omissions which were semantically acceptable (21.28). The readers produced an average of 3.67 insertion miscues and an average of 14.69 omission miscues. Insertion miscues occurred about one-third as often as omission miscues.

Corrections

The mean percentage of corrections for the two groups is 24.74, which is slightly higher than the dialect groups in Goodman's study (Goodman, in press), who have a mean correction score of 22.26. These correction scores seem low unless one considers the incidence of partials which were corrected but not coded for these readers.

Partials. Fragment is the term given to parts of words which the reader begins and never completes. Example:

Excerpt from the reading of "One, Two, Three, Go!" by a FT reader:

One, two, three, go!

In the above example, the reader predicted a word which began with a /t/, realized that he was wrong, and corrected to the appropriate word. Such an example provides evidence that the reader is making use of graphic information, is making a prediction, and is testing and disconfirming that prediction, using the syntactic and semantic information available. Thus, the above example is that of the reading process operating efficiently.

In the following example, something very different is happening:

Excerpt from the reading of "Maria's Big Experiment" by a NFT reader:

6. # stammered

5. s-

4. s-

3. stam-

2. stu-

1. st-

"S-Sorry I disturbed you," Maria stammered.

The reader is using only the graphic information and is making repeated attempts to sound out the word, all of which are unsuccessful. There is little evidence that the reader is making predictions on the basis of the available syntactic and semantic information. The above is an example of an inefficient and ineffective reading strategy.

As has been demonstrated by the preceding examples, partials can give indications of strength or weakness, depending on the number of partials produced for a given word.

For the purpose of this study, it was felt that an in-depth analysis of partials would be less informative than other analyses. However, a hand count was made of the average number of partials produced by each group: 10.56 for the FT group and 16.05 for the NFT group. Combined with the correction averages for the two groups, the partials give a clearer picture of the amount of correction involved in the reading.

Other Correction Categories and Acceptability

Besides being successfully corrected, miscues may be unsuccessfully corrected, or not corrected, or the ER may be abandoned in favor of another word.

The percentages of each of these categories which resulted in syntactically and semantically acceptable with minimal or no meaning change were obtained. As can be seen in Table 6, the highest percentage occurred in the Abandon Correct category. This is not surprising since this phenomenon occurred least often and therefore a small number of instances produced a high percentage.

Excerpt from the reading of "The Pest" by a FT reader:

It was a swell little radio, ^(AC)shiny and black in a real leather case. This miscue is complex because the function of *shiny* is changed from an adjective to an adverb. The new construction is as syntactically and semantically acceptable in the story as the ER and there has been no change of meaning.

The next highest percentage is in the category of no correction.

Excerpt from the reading of "The People Downstairs" by a FT reader:

From the top floor it was easy to go up ^{on} to the roof. This miscue, which was not corrected, results in a sentence which is still syntactically and semantically acceptable with no meaning change.

Occasionally miscues which are unsuccessfully corrected result in syntactically and semantically acceptable sentences with little or no meaning change. This occurred most frequently with regard to name, as substitutions of names are not considered changes in meaning unless some confusion over the characters develops.

Excerpt from the reading of "The Monster" by a FT reader:

^{Billy}"You think I'm ^{uc}Bill because you don't know any better," ^{2. Billy}^{1. you}Bill told her.

All the above examples indicate that the readers did not over-use the correction strategy. None of the above examples needed to be corrected because they were syntactically and semantically acceptable as left by the readers.

CORRELATIONS

Tables 9 and 10 present the significant correlations found in this study.

Syntactic and Semantic Acceptability and No Meaning Change

There are high correlations among these variables for both groups. This is to be expected because of the close relationship between syntax and semantics in the coding system, as sentences which are coded semantically acceptable are always coded syntactically acceptable as well.

Since the meaning change category and semantic acceptability are both comprehension measures, it is to be expected that these three variables would correlate highly with each other.

TABLE 9

SIGNIFICANT PRODUCT-MOMENT CORRELATIONS FOR FT GROUP

	Syntactic Acceptability	Semantic Acceptability	Retelling Score	Graphic Similarity	Sound Similarity
Semantic Acceptability	.8744 (.001)	-----	.3385 (.043)	NS	NS
Retelling Score	NS	.3385 (.043)	-----	-.3739 (.025)	-.3694 (.001)
Graphic Similarity	NS	NS	-.3739 (.025)	-----	.8895 (.001)
Sound Similarity	NS	NS	-.3694 (.027)	.8895 (.001)	-----
Grammatical Function	.3751 (.024)	NS	NS		NS
No Meaning Change	.0217 (.001)	.8974 (.001)	.4122 (.012)	NS	NS

TABLE 10

SIGNIFICANT PRODUCT-MOMENT CORRELATIONS FOR NFT GROUP

	Syntactic Acceptability	Semantic Acceptability	Retelling Score	Graphic Similarity	Sound Similarity
Semantic Acceptability	.9164 (.001)	-----	.4705 (.003)	NS	.5157 (.001)
Retelling Score	NS	.4705 (.003)	-----	NS	NS
Graphic Similarity	NS	NS	NS	-----	.6494 (.001)
Sound Similarity	.6723 (.001)	.5157 (.001)	NS	.6469 (.001)	-----
Grammatical Function	NS	NS	NS	NS	NS
No Meaning Change	.8858 (.001)	.9658 (.001)	.4545 (.005)	NS	.4589 (.004)

High Graphic and Sound Similarity

This correlation is also to be expected. Although there is no one-to-one correspondence in English between the way a word is spelled and the way it is written, there is a relationship between the two.

Semantic Acceptability, No Meaning Change, and Retelling Scores

There are correlations among these variables. These correlations will be discussed in Chapter Five.

Syntactic Acceptability, and Same Grammatical Function

There is a low correlation between these two variables for the FT group but no significant correlation for the NFT group. This correlation indicates that for the FT group, syntactically acceptable sentences tended to contain miscues with the same grammatical function as the ER.

A somewhat higher correlation was found between these two variables in the reading of the second graders in Goodman's study (Goodman, 1973), but the correlation was not found for any of his older readers.

The grammatical function category was not coded in the same way for this study, so the results must be viewed with caution. However, the correlation does exist for Goodman's second graders and the FT readers in this study.

Retelling Scores and Graphic and Sound Similarity

For the FT group, there are low negative correlations among retelling scores and graphic and sound similarity. This means that for these readers substitution miscues which were not highly similar in graphics and sound to the ER were found more often in the reading of children with high retelling scores and that substitution miscues which were high in graphic and sound similarity to the ER more often occurred among the readers with low retelling scores. When readers are not having success at understanding the text, they tend to pay closer attention to grapho-phonics relationships.

These correlations are very close to those which Goodman found at the tenth grade level in his study (Goodman, 1973). Again, however, the coding of graphic and sound similarity for this study was different.

Syntactic and Semantic Acceptability, No Meaning Change, High Sound Similarity

The correlations among the first three variables for the NFT group are to be expected because of the relationship among comprehension measures and the relationship between semantics and syntax. The correlation between high sound similarity and the other variables is a pattern that was found

for the second and fourth grade readers in Goodman's 1973 study but not found among the older readers in his study, who tended to demonstrate an inverse relationship between sound and graphic similarity and the other variables listed above. Again, the coding was different in the two studies but can be considered roughly equivalent.

MPHW and Significant Correlations

TABLE 11
MPHW AND SIGNIFICANT PRODUCT-MOMENT CORRELATIONS FOR BOTH GROUPS

MPHW	Syntactic Acceptability	Semantic Acceptability	Retelling Score	Sound Similarity	No Meaning Change
	-.7447 (.001)	-.7215 (.001)	-.3418 (.003)	-.5043 (.001)	-.6913 (.001)

The above table presents the correlations between MPHW and other variables for both groups. Only the significant correlations are presented in the table. All the correlations are negative, which signifies an inverse relationship between MPHW and the other variables. That is, as MPHW increase, the quality of these miscues declines. This has been stated earlier in the report. However, it should be repeated that the number of miscues made by a particular reader on a particular story is dependent upon many variables, and MPHW examined in isolation from the other miscue categories does not give a good indication of the effectiveness of the reading.

QUALITATIVE INFORMATION

Teacher Dependency

Children in the early grades are often taught to be dependent upon the teacher for information about words they can't read. This dependency is overwhelmingly evident in informal interviews with children. When asked what they do when they don't know a word, the reply is almost invariably, "Ask the teacher." The children in this study were not asked that question. However, they provided other evidences of the fact that they were dependent upon some source outside themselves to provide them with information.

Prior to the reading, the children were told that they would receive no help from the researcher and that they could skip a word they didn't know if they could not make a guess. The researcher was trained to sit quietly

and show no signs of impatience over long pauses while the children thought about what the word might be. However, it was occasionally necessary for the researcher to remind the children that they could skip the word and continue reading. These reminders came after extremely long silences and occurred more often among NFT readers than among FT readers. In addition, one NFT reader asked for confirmation about a word two different times: "Is that right?"

This dependency was not often exhibited by either group, however, and did not appear to be a major problem for these readers.

Story Length

Another failing in many reading classes is that children are seldom allowed to read a story in its entirety at one sitting without interruption. The most effective way to improve reading is to allow children to read whole, natural stories and accumulate meaning from all the redundancy and syntactic and semantic structure provided in a complete text (Smith, 1975).

Examples of comments from the children which indicated that they were unaccustomed to reading a long story in one sitting follow: "This is long." "Ah, the last one [page]." "Should I read more?" "Oh, man, I gotta read all this more?" "That's all." [At the end of the first page.]

Only one FT reader complained about the length of the story, while comments about the length were made by eight NFT readers. Again, this tendency was not exhibited by many readers and is not considered to be a major problem for them.

Responses to Question of How Story Should Be Changed

Other information about attitudes toward reading was obtained from the children's answers to the question, "If you could change anything you wanted about the story, what would it be?" These answers were categorized, and the table below (Table 12) shows the percentage of each group which contributed to each category of responses.

TABLE 12
RESPONSES TO QUESTION OF HOW STORY SHOULD BE CHANGED

Responses	FT	NFT
No Change	43	54%
Change Words	21%	8%
Change Story	36%	38%

The largest percentage of children for both groups said that they would not change the story in any way. The second largest percentage is children who had interesting suggestions about how to make the story better. Examples follow:

Excerpt from the retelling of "One, Two, Three, Go!" by a FT reader:

Subject: The boy ran away. He came back because he didn't want to get caught by the police.

Excerpt from the retelling of "The Pest" by a FT reader:

Subject: I would put my story that Mr. Grill would fall down the stairs instead of the other guy. That would make more sense.

Excerpt from the retelling of "The People Downstairs" by a NFT reader:

Subject: I might add something onto it, like they might have lived happily.

Excerpt from the retelling of "The Pest" by a NFT reader:

Subject: I would change around the cleaning and stuff, the job, and put that last

It was anticipated that many children would make comments about the difficulty of the words, but only a small percentage of the children in either group made such comments. Examples:

Excerpt from the retelling of "The Monster" by a FT reader:

Subject: I'd take out that word -- I think it was Malvo. I couldn't read that word.

Excerpt from the retelling of "The Voice from the Deep" by a NFT reader:

Subject: I'd have two different names and two different boys.

[This reader had difficulty with the name Mike in the story.]

Although some of the readers were troubled by their inability to read every word in the story, this did not appear to be a concern of most of the readers. Thus, a majority of the readers did not indicate by their comments that they view reading as a precise process.

SUMMARY

The oral reading protocols were coded and subjected to statistical analysis to determine what differences and similarities exist between the groups with regard to reading strategies. The groups were also broken into various sub-groups to discover specifically where the differences might be.

One significant difference between the large groups is in the correction strategies they used, with the FT group producing a smaller percentage of unsuccessful correction. Within the sub-groups, the NFT group

rated by their teachers as average readers produced a significantly larger percentage of unsuccessful corrections than the FT group rated as average.

The FT group as a whole produced a larger percentage of uncorrected miscues, primarily attributable to the FT boys, who have a significantly larger percentage in this area than the NFT boys.

While the large FT and NFT groups were equally effective in their correction strategies, as determined by their roughly equivalent syntactic and semantic acceptability scores, the FT group as a whole appears to be more efficient in its correction strategies.

The other significant difference between the large groups is that of teacher estimate, the FT readers being rated significantly lower in reading ability than the NFT readers by their teachers. This is attributed to the facts that FT teachers rated the FT girls significantly lower than the NFT teachers rated the NFT girls, and that FT teachers did not consider any of their students to be superior readers, although the FT readers used more efficient correction strategies and were equal in every other way to the NFT readers. The absence of one FT teacher and the fact that her students were not rated may have affected the results somewhat.

When all the readers rated as effective are compared to the NFT readers rated as superior, significantly higher numbers of dialect miscues and miscues per hundred words are obtained by the group rated as effective. Dialect-involved miscues should be viewed as evidence of strength, and MPHW alone does not give a good indication of reading proficiency.

In one area -- no meaning change -- the superior group is significantly higher. However, when combined with minimal meaning change, this difference disappears.

In a comparison of stories, the three lowest-level stories were combined to provide a sufficient N. There are no significant differences between the groups for these stories.

NFT readers on story 04 have a larger percentage of high graphic similarity, and FT readers on story 05 score significantly higher in this category. These high scores are partly attributed to dialect miscues and names, which were generally high in graphic similarity. With the exception of dialect and names, about half of the other miscues high in graphic similarity were semantically unacceptable before correction, both for NFT readers on story 04 and FT readers on story 05, indicating that graphic and sound similarity between miscue and expected response are not always desirable.

The NFT group reading story 06 corrected a higher percentage of their nonwords than the FT group, but they produced more nonwords. The actual number of uncorrected nonwords produced by both groups is exactly equal, and there are equal numbers of readers from both groups reading story 06.

On story 07, the NFT group produced a higher percentage of omissions, correcting only 15% of the omission miscues which resulted in semantically unacceptable sentences.

The differences between the groups which were observed in individual stories are equaled out when all the stories are combined, so that, again, the only significantly different results between the two groups as wholes are the more efficient correction strategies of the FT readers and the lower estimate of FT readers by FT teachers.

With regard to corrections, there are also some differences between the groups. For the FT readers there is a low correlation between syntactic acceptability and same grammatical function, a correlation Goodman also found among second graders in his 1973 study, although the categories in this study and Goodman's study were coded differently.

The NFT readers show a positive correlation between semantic acceptability and high sound similarity, while the FT readers show a negative correlation between graphic and sound similarity and the retelling score, which, like semantic acceptability, is a comprehension measure. In this regard, the FT readers look like the tenth grade readers in Goodman's study, and the NFT readers more closely resemble his second and fourth graders. Again, the coding for the two studies was not the same, but the results should be roughly equivalent.

When correlations between variables are examined, high correlations exist between syntactic and semantic acceptability, semantic acceptability and no meaning change, and syntactic acceptability and no meaning change for both groups. This is due to the clear relationship between syntax and semantics and to the fact that the semantic acceptability category and the no meaning change category are both comprehension measures.

There is also a fairly high correlation for both groups between high graphic and sound similarity, due to the moderate correspondence between the two systems in English.

For all other variables examined in this study, the FT and NFT groups look remarkably similar -- and effective.

Both groups are high in syntactic and semantic acceptability, and the groups have about equal percentages of complex miscues. They are also high in the category of minimal or no meaning change.

Both groups fall within the average range of MPHW and correctors, and they are equivalent with regard to omissions, insertions and dialect, although the readers in both groups with evidence of divergent dialect influence in their reading tend to correct their dialect and produce super-correct dialect miscues.

Neither group appears to be overly dependent upon an outside source for help in reading or overly concerned about words they are unable to read or the length of the stories they are given.

CHAPTER FIVE RETELLINGS

BACKGROUND AND METHODOLOGY

Collection of Data

The children were advised prior to the reading that they would be asked to retell the story. Following the reading, each child received the same instructions: "Tell me everything you can remember about the story."

These instructions initiate the first phase of the retelling procedure, which is called the unaided retelling. The children are free to say anything they wish about the story, and the researcher is to remain noncommittal and quiet during this phase. When there are silences, the researcher is trained to give the children time for thinking, and it is only after the researcher feels that the children have voluntarily contributed as much information as possible that the researcher will initiate the second phase, the directed retelling, by asking open-ended questions based on the information the children have already given. Following is an example of the questioning technique:

Excerpt from the retelling of "The Pest" by a NFT reader:

Subject: And sometimes he was kind of angry about that boy. At first when he tried to scare him, and at the first when he asked could he go with him and he said "no."

Researcher: Why do you suppose he felt that way about the other boy?

Subject: Because he was too young.

Researcher: Too young to do what?

For this phase of the retelling, the researcher is provided with an outline of the story read by the child, and every effort is made to elicit from the child as much information about that story as possible, without asking leading questions. By checking off the information provided by the child in the unaided phase, the researcher can build on that information and try to obtain more (see Appendix C for sample retelling outline).

Transcription of Retelling

As with the reading, both phases of the retelling were recorded on audio-tape. These tapes were then transcribed by a listener. The retellings were then checked by a second listener, either in their entirety or in trouble spots where the child or the researcher was difficult to understand, due to background noise or other factors. Two tapes had to be rejected from the study because of incomprehensibility, but in the remaining 73 tapes there were only a few minor instances in which a group of listeners could not discern the dialogue. These phrases were considered garbled and were not used in the analysis of the data.

Objectives

The retelling data was analyzed to achieve the following objectives:

1. To determine the relationship for these readers between *comprehending* (the process of understanding the text which takes place during reading) and *comprehension* (which is the cumulative result of the reader's interaction with the whole story).
2. To determine the extent to which other indications of interaction with the story -- plot and theme statements, misconceptions and inferences, personal responses -- were present in the retellings of these readers.
3. To determine the ways in which these readers chose to retell the story when no format was provided for them.

Limitations

One limitation of the retelling procedure is that which is present in any testing situation in which individuals are asked to respond orally, and that is the extent to which the individuals are willing to share all that they know and the extent to which they are willing to take a chance on being wrong. These factors vary from individual to individual and from culture to culture and are influenced by the rapport established between the researcher and that individual. Obviously, all the children in this study did not perceive the researcher or the task as non-threatening to the same degree, regardless of the fact that the researcher was supportive and relaxed.

In addition, the time available for training the researcher prior to the collection of the data was very limited. The ability to ask open-ended questions and guide the retelling so that the information the child has gained from the story will be revealed is not easily learned and requires more time than it was possible to provide. The retelling procedure is refined and improved with practice in listening to and

directing children's retellings over long periods of time. However, the children did respond positively to the researcher, and a great deal of information was obtained from them, as evidenced by their retelling scores (discussed on p. 63).

One further limitation is the fact that only one story for each child was evaluated. It is possible that the children might have demonstrated different modes of retelling and differing degrees of understanding of another story because the style of the author, the presuppositions inherent in the story, and the concepts that are developed, among other factors, influence the retelling. Therefore, the information obtained from these retellings must not be equated with competency but viewed as evidence of these children's interaction with a particular story.

Very little is known about the cognitive processes involved in comprehension or what the best indications of comprehension might be, but the retelling procedure is the most comprehensive for obtaining information about comprehension.

Problems with Stories

With the exception of the first two, all the stories in this study made use of stylistic or formatting devices which could have caused confusion for the readers.

Stories 03 and 04 used capital letters for the purpose of emphasis or to indicate loudness. This did not appear to confuse any of the readers, however, and one reader indicated in the retelling that she understood the use of the capital letters:

Excerpt from the retelling of "The Monster" by a FT reader:

Subject: And he said that she was shouting on the telephone.
 And she kept on saying "Hello." And . . . I didn't
 want to say it real loud, that you know, the
 printing?

Eye dialect and repetitions were used in stories 06 and 07 (see discussion, p. 12)

In stories 05, 06, and 07 words were divided at the ends of the lines to assure an even margin on the right-hand side of the page. These divisions caused difficulty for most of the children who read these stories, as they often produced nonwords or two words for those words which were divided:

Excerpt from the reading of "The People Downstairs" by two NFT readers:

The door opened just a crack and a thin little woman looked out
with a worried frown.

The door opened just a crack and a thin little woman looked out
with a worried frown.

On one page of story 06, there is a short paragraph followed by a large illustration, and the rest of the page is text. Some readers omitted the paragraph at the top of the page, not expecting print above the illustration.

Story 07 was printed with two columns per page. This, too, was distracting to the readers in this study.

Such formatting devices should be carefully examined by publishers to determine whether there is any real value in giving precedence to the form over the function of the materials.

Despite their problems with the stories, however, they did meet the criteria established for this study, and some of the stories were very enjoyable to the children, as evidenced by such voluntary comments as:

"It was a good story, and I liked it pretty much."

"It's kinda good."

"It's a long story, but it was a nice story."

Scoring of Written Outlines

The written outline is considered to be that information which comes directly from the story; that is, the events, characters and character traits available to the reader through the specific language of the story. In other words, the surface information is that which is provided in the retelling outline (see Appendix E).

The retelling outline was divided into three parts: Character Recall, Character Development, and Events. This outline often moves one step beyond the surface information, as even a simple task of reading may involve dealing with such things as character development, although when character traits or other information details about their physical appearance are spelled out specifically in the story. Others must be inferred from the story, however, since they deal with characters they are so dependent on the reader's understanding of the character's

development rather than analyzed separately as inferences. For example, one reader described Catey in "The People Don't Fair" as friendly. While this word is not used by the author to describe her, the reader can infer that she has this quality from the things she says and does in the story. This reader was given points in the retelling score for this inference.

The retelling outline is merely a guide, and appropriate characters, traits, or events not listed in the outline are also given points in the scoring of the retelling.

Since the characters were not well-developed in the first four stories (a typical starting point of stories at the beginning levels), more points were assigned to Character Recall (20 points) than to Character Development (15 points). Although the fifth and sixth grade stories were rich in character development as compared to the other stories, the point count for the three parts of the outline was kept consistent through all the stories.

The third part of the retelling outline, Events, was assigned 65 points for each story, but each event within the story was weighed according to its importance to the story line and the frequency with which it was mentioned by the child who read that particular story (see Appendix E for example of points assigned to retelling outline).

The scoring of the retelling of the first five stories was done independently by two of three researchers, and the results were then compared, discussed and revisited where necessary so that agreement was reached. In the last two stories, a spot check by a second researcher revealed no differences in the scoring of events, and it was agreed that the scoring was accurate.

It is possible that the greater agreement and the greater agreement between the researchers for the latter two stories was due to the fact that the latter two contained the characters, a stronger story line, and a more consistent plot line than the stories written on the paper through the first grade. The latter two stories were easier to retell, and the characters were more prominent.

RETELLING OUTLINE

The following outline was used to score the retelling of the stories in the study.

TABLE 13
RETELLING SCORES

Story Number	Follow Through	Non-Follow Through
01	52.00	45.50
02	57.50	37.00
03	64.00	58.75
04	64.00	55.50
05	62.00	53.25
06	66.40	73.30
07	64.00	56.60
Weighted Mean	60.61	59.43
Standard Deviation	14.18	15.27

These retelling scores indicate that there is no statistically significant difference in the amount of surface information recalled by the readers in the two groups for any story or for each group as a whole.

It is also important to consider the ranges when analyzing retelling scores and small numbers of children to determine whether one atypical reader has influenced the mean. Figure 13 shows the ranges and the means for each group for each of the stories.

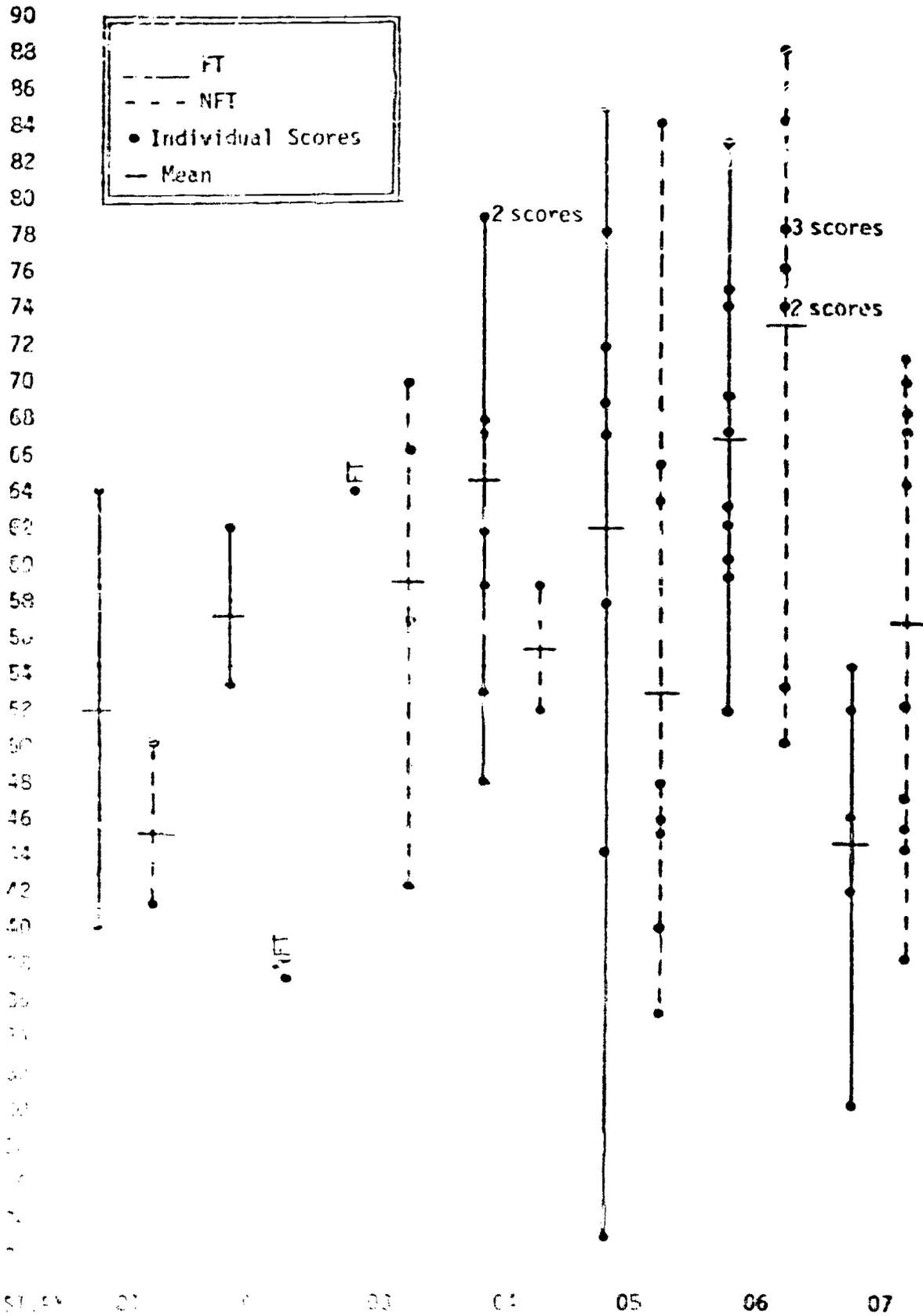
In three instances one reader did adversely affect the mean:

1. In story 01, the WFT reader's score is 15 points below the next highest score for that group.
2. In story 05, the FT reader's score is 11 points below the next highest score for that group.
3. In story 07, the FT reader's score is 12 points below the next highest score for that group.

In one instance one reader did not affect the mean: in story 05, one WFT reader's score is 20 points above the next lowest score for that group.

However, if this reader's score is included in the mean, the mean for the FT group is 60.61 and the mean for the WFT group is 59.23, and the difference between the two means is not statistically significant.

FIGURE 2
MEANS AND RANGES OF RETELLING SCORES



In the latest available research (Goodman, in press), ranges and means of retelling scores were also obtained. The figures for the four dialect groups in Goodman's study were compared with the ranges and means in this study as a measure of the typicalness of the scores derived from this study. These findings are shown in Table 14.

TABLE 14
MEAN RETELLING SCORES
(This Study, and Latest Goodman Study)

	Mean Scores (Secondary Data)	Range
Goodman's Dialect Groups	51.85	23-84
Follow Through	58.73	23-85
Non-Follow Through	54.27	35-88

As can be seen from the above figures, the mean score obtained from the FT children in this study differs only by 6.85 points from the mean score obtained in the Goodman study, and the extreme scores of the ranges differ even less. This information indicates that the researcher was able to obtain from the children about the same amount of surface information as was obtained in the Goodman study, and that the random sample obtained for this study represents a fairly average range, as compared to the Goodman study, in which only average readers were used.

CHARACTERS AND EVENTS

None of the readers failed to mention the major characters in any of the stories, and all the readers mentioned at least one minor character. Even in the most limited retellings, children demonstrate that they recall the major characters of a story. They do not always remember the names of the characters, but they are able to tell enough about the characters to differentiate the

None FT (25%) and quarter-NFT children (46%) failed to mention all of the major events in a story. Only 20% of the FT group mentioned all the major events in the story. These events were deemed major, not only according to the researcher's opinion, but according to the frequency with which they were mentioned by all the children who read the story.

Examples of major events mentioned by all except one of the children are the fact that Maria won the contest in "Maria's Big Experiment" and the fact that the Sherrill children in "The People Downstairs" had to be quiet because the man downstairs worked at night and slept all day.

Although surface recall, as indicated by retelling scores, did not differ between the groups, the criterion of major as opposed to minor events indicates that the FT group's retelling consisted of less detail and more significant events in the story. This ability may be due to their having had more opportunities to discuss books and to learn through these discussions what they, themselves, and other children consider to be significant.

PLOT AND THEME STATEMENTS

During the directed retelling, the children were asked for plot and theme statements. A plot statement is here defined as a short statement which sums up the story line. It should include the problem in the story and its resolution. Although possible plot and theme statements for each story were included in the retelling outline (Appendix E), any statement was accepted which was plausible in terms of the particular story and acceptable according to the definition of plot and theme statements.

Following are examples from retellings in which the researcher used typical questions for obtaining plot statements and receives a plot statement from the child:

Excerpt from the retelling of "Presents Don't Walk Away" by a FT reader:

Researcher: If you were going to tell a friend what this story was about without telling everything that happened, what would you tell your friend?

Subject: This girl named Pat lost her present. She couldn't find it. She ended up with a dog.

Excerpt from the retelling of "Maria's Big Experiment" by a NF7 reader:

Researcher: If you were going to tell me what this story was about in a sentence instead of retelling the whole story, what would you say the story was about?

Subject: Maria and Diane were going up against each other for a science fair. Diane gave Maria an idea, and Maria won.

Occasionally the first statement made by the child in the unaided retelling are plot statements, as in the following examples from the retellings of "Maria's Big Experiment":

Excerpt from the retelling of a FT reader:

Subject: She took some paper bags and put them on some bull, and she won.

Excerpt from the retelling of a NFI reader:

Subject: It was about this little girl; she had a friend named Silly. She told her what to do, and she did it, and she won the prize.

Plot statements are given to children who have low retelling scores as well as by children with high retelling scores. They are, therefore, merely a function of the reteller readers. For both groups, the high retelling scores plus plot statements occurred predominantly in the upper level stories (61-77), while the low retelling scores plus plot statements occurred predominantly at the beginning levels. This is probably due to the quantity of detailed information provided by stories at the beginning levels.

Table 15 shows the number and percentage of readers for each story who produced plot statements.

TABLE 15
PLOT AND THEME STATEMENTS

Story Number	Number of Readers		Number of Readers Giving Plot Statements		Number of Readers Giving Theme Statements	
	FT	NFT	FT	NFT	FT	NFT
01			1		0	1
02			1	0	0	0
03	1	4	1	2	0	0
04	1	2	2	0	4	1
05	1	1	4	1	5	4
06	10	10	1	3	7	3
07	6	1	1	7	2	5
Percentages (adjusted for question asked)	38	38	38	38	51	39

There is no statistically significant difference between the percentages of readers who produced plot statements.

The *theme statement* is a statement related to the story but generalizable to a broader context. Usually it is obtained through a direct question such as, "What do you think the author is trying to teach you in this story?"

Excerpt from the retelling of "The People Downstairs" by a FT reader:

Researcher: Do you think this story might have a moral to it?

Subject: (Pause) When people need sleep that you always be quiet.

Excerpt from the retelling of "The Monster" by a NFT reader:

Subject: Stop playing on the telephone.

Theme statements, if they are given, almost always occur in answer to the theme question. Occasionally they appear in answer to another question. For example, one reader did not produce an acceptable theme statement when asked the traditional type of theme question, but when asked a slightly different question, she responded with a theme statement:

Excerpt from the retelling of "Maria's Big Experiment" by a FT reader:

Researcher: Do you think Maria changed in this story or learned something?

Subject: She probably learned something.

Researcher: What do you think she might have learned?

Subject: She probably learned that no one can be perfect.

Unlike plot statements, no theme statements were ever volunteered in the unaided retelling.

Table 15 shows the number and percentage of readers for each story who produced theme statements. Although the FT group produced more theme statements, the differences between the groups is not statistically significant. One factor with regard to the number of children producing plot and theme statements is interesting, however. In comparison to the percentage of plot and theme statements produced in the latest miscue research (Goodman, in press), the children in this study produced a significantly smaller percentage of plot statements and a significantly larger percentage of theme statements. The smaller percentage of plot statements could be due to the fact that the children in this study were somewhat younger than two-thirds of the children in the Goodman study, and that the ability to provide succinct statements about a story is developmental (see discussion, p. 69).

Since the theme question most frequently asked in this study related the theme of a story to a moral, the high percentage of theme statements seems to suggest that both the FT and the NFT readers have had a great deal of experience with extracting a moral from stories.

Morals and theme statements are not necessarily the same thing, although a moral which was applicable to the story was credited as a theme statement. Children need a broader understanding of the function of stories, achieved by exposing them to a variety of good literature which is not didactic in the message it conveys. Nevertheless, a moralistic theme statement, classified here as non-functional, still involves a broader perception of the function of stories than does a functional theme statement.

Functional Theme Statements

Theme statements were categorized as functional or non-functional. The above discussion deals with non-functional theme statements, generalized statements about life which reveal that the reader views stories as having broader implications, as opposed to functional theme statements, those which reveal that the child perceives a story as merely a tool of instruction, for teaching reading or for teaching the performance of some task. The following are examples of functional theme statements:

Excerpt from retelling of "The People Downstairs" by a FI reader:

Researcher: Can you think of any lesson that this story might have been trying to teach you?

Subject: Some words.

Researcher: OK.

Subject: And how to read.

Researcher: OK.

Subject: Not to point at the lines of the sentence

Researcher: OK. Anything about life that the man that wrote the story might want you to remember?

Subject: When to remember words and things to help other people.

The final statement made by the above reader comes closest to being a non-functional theme statement.

Since the researcher usually cautioned the reader against making statements about how to read, the readers did not often make this type of functional theme statement. Of the 25 instances in which this warning was not given, three children produced statements which revealed that they regard the purpose for reading as merely a tool of reading instruction. Two of these were NFI readers, and one was a FI reader.

Three other functional theme statements were received from NFI readers:

Excerpt from retelling of "The People Downstairs":

Subject: How to be quieter

Excerpt from retelling of "The Voice from the Deep":

Subject: About what workmen do when boxes go down.

Excerpt from retelling of "Maria's Big Experiment":

Subject: That you should put, like a piece of paper over one side of the bud so it wouldn't be in the sun.

The fact that only 6% of the theme statements produced by FT readers were categorized as functional points to the possibility that the FT readers, with their background of language experience, perceived the function for reading stories in broader terms than merely as tools of instruction.

The NFT readers, for whom functional theme statements made up 36% of the theme statements produced, seemed to view reading to a greater degree as having only an instructional purpose.

When those readers who had been asked for both plot and theme statements (33 of the FT group and 36 of the NFT group) were compared, it was found that five FT readers (15%) and two NFT readers (6%) produced both plot and theme statements.

The ability to synthesize the story line and also to apply it to a broader generalization about life does not appear to be prevalent among the readers of either group.

ORGANIZATION OF THE UNAIDED RETELLING

In the latest miscue research (Goodman, in press), analysis of the unaided retellings revealed five strategies employed by the readers in retelling the story. These organizational responses are as follows:

1. Kaleidoscopic retelling -- a random recounting of events in nonsequential order.
2. Recounting of all events in sequential order.
3. Recounting of main events in sequential order.
4. Plot statement followed by recounting of all events in sequential order.
5. Plot statement followed by main events in sequential order.

The retelling strategies used by the children in this study were compared to those categories found in the Goodman study to determine whether the same strategies were being used. It was found that the readers in this study did not use the "plot statement plus main events" mode of retelling. Two retelling strategies in addition to those found in the Goodman study were identified. These additional strategies were: 1) a statement of plot with no additional information; and 2) a limited retelling, so-called because

the reteller did not provide enough language for the unaided retelling to be categorized in any other way.

No significant differences were found between the FT and NFT readers for any of the retelling modes (see Table 16).

TABLE 16
RETELLING MODES

Mode of Retelling	Number of Retellings for Each Mode	
	FT	NFT
Sequential Events	15	15
Kaleidoscopic	8	8
Main Events	6	8
Plot Statement & Events	4	2
Plot Statement Only	2	2
Limited	2	2
Plot Statement & Main Events	0	0

The sequential mode of retelling was used most often by both groups. Since reading teachers generally devote a great deal of time to sequencing, this is likely to be the result of instruction.

Kaleidoscopic retellings occurred second in order of frequency, and this may be caused by the fact that in tasks of recall an individual usually first recalls the last event or the most significant event for that individual, and this creates a chaining effect, reminding the reteller of another incident which is linked to another, and so on.

Most of the retellings were of the first five types -- lengthier and providing more information than the retellings which were limited or which consisted of only plot statements. This could be due to the instruction, "Tell me about everything you remember," or it could be a developmental phenomenon. Most young children tend to tell everything they know rather than restricting their accounts to a few statements.

INFERENCES, MISCONCEPTIONS, AND PERSONAL RESPONSES

While plot and theme statements indicate that the reader is able to summarize and apply the information provided in the story as a whole, other aspects of the retelling -- inferences, misconceptions, and personal

responses -- usually represent the reader's ability to interact with smaller units of information, one or more of the various concepts or ideas presented in the story.

Inferences

Inferential statements other than those related to character development and simple recall (discussed on p. 59), were not scored with the surface information. Instead, they were listed and tabulated separately. *Inferences* are here defined as information provided by the reader which is not available in the specific language of the story but which is appropriate to the story. Examples follow:

Excerpt from the retelling of "The Pest" by a FT reader:

Researcher: Was there anything in particular that Tony did in the story to make Hector like him more -- think he was not a pest?

Subject: He moved the bottle.

Researcher: And what difference did that make?

Subject: 'Cause the man couldn't see good. If he [Tony] wouldn't have went down there, he would probably have tripped over it.

(The story provides the information that the old man couldn't see well, but leaves the reader to infer Tony's contribution to the situation.)

Excerpt from the retelling of "Presents Don't Walk Away" by a NFT reader:

Researcher: Tell me more about Mr. Bell. Who was he?

Subject: A store man.

Researcher: What did he do in the story?

Subject: Sells candy.

(Although it is entirely possible that Mr. Bell might sell candy in his shop, there is nothing in the story or the pictures to give the reader this information.)

Misconceptions

Misconceptions stem from the same thought processes as inferences. Both are the result of the reader's interaction with the story, but in the case of misconceptions, the interaction results in a statement which is not possible within the framework of the story being discussed. There are, no doubt, varying degrees of misconceptions along the continuum which has inferences at the positive end, and some misconceptions hinder the understanding of the total story to a greater degree than others, but it remains for future research to explore the possibility of varying degrees of acceptability of misconceptions.

In addition, it may be true that misconceptions are obtained more often from children who are willing to take risks; that is, the children may have some feelings of uncertainty about a particular inference gained from the story, but are willing to express it anyway. The question of whether statements of misconceptions are related as much to the personality of a given reader as to the actual understanding of the story also remains to be explored by future research.

For the purpose of this study, misconceptions are considered as evidence of a misunderstanding of the text, but also as evidence that the reader is interacting with the material. Examples follow:

Excerpt from the retelling of "One, Two, Three, Go!" by a NFT reader:

Researcher: What happened after the boys started running?

Subject: The girls ran, the man ran, and the people ran

Researcher: OK. Why were they all running after the boys?

Subject: They wanted to see which one won.

(Since the point of this story was that the other people did not know the boys were running a race, this statement is a misconception.)

Excerpt from the retelling of "Presents Don't Walk Away" by a FT reader:

Researcher: Tell me a little more about Pat.

Subject: I guess she wanted a birthday present and he [Mr. Bell] wouldn't give her one 'cause she didn't look very happy that day.

(Like most misconceptions, this contains elements of truth in terms of the particular story being discussed. Pat did look unhappy, and she did want a birthday present, but Mr. Bell did not refuse to give her one.)

Table 17 shows the number of readers from each group who produced inferences and misconceptions in the retelling.

There is no statistically significant difference between the two groups with regard to the production of inferences and misconceptions, although a larger percentage of the NFT readers produced misconceptions. In a comparison of the boys and girls in each group, the results which are presented in Table 18 were obtained. Again, no significant differences exist between the groups.

The slightly smaller percentage of misconceptions on the part of the FT group may reflect the fact that program these children have had. The Tucson Early Education Model (TEEM) has a strong language base, and it may be that through the process of languageing, the FT children have had more opportunities to formulate and clarify concepts.

TABLE 17
INFERENCES AND MISCONCEPTIONS

Story Number	Number of Readers		Number of Readers Producing Inferences		Number of Readers Producing Misconceptions	
	FT	NFT	FT	NFT	FT	NFT
01	2	2	0	0	2	2
02	2	1	2	1	2	1
03	1	4	0	1	1	3
04	8	2	1	1	6	1
05	8	8	3	0	3	6
06	10	10	3	2	7	9
07	5	10	0	6	4	8
Percentage of Readers Producing Inferences and Misconceptions	36	37	25%	30%	69%	81%
Average Number of Inferences and Misconceptions per Child			1.00	1.36	2.12	1.70

TABLE 18
BREAKDOWN OF SCORES BY SEX

Criterion	FT Girls	NFT Girls	FT Boys	NFT Boys
Plot Statements	31%*	37%	35%*	33%
Theme Statements	65%	39%*	39%	39%
Inferences	29%	37%	21%	22%
Personal Responses	24%	5%	26%	17%
Misconceptions	59%	79%	79%	83%
Mean Retelling Scores	59.12	60.63	61.95	58.17

*Adjusted for questions not asked

Personal Responses

In addition to the production of inferences and misconceptions, another evidence that the readers are going beyond the surface information of the story are their *personal responses* to the story. These responses are triggered by something in the story but are directly related to the lives of the readers, and they are spontaneous rather than the response to a personal question. Some examples follow:

Excerpt from the retelling of "The People Downstairs" by a FT reader:

Researcher: Can you describe those people for me?

Subject: Yes, because my daddy works at night and he gets to have sleep all day 'til three o'clock. Well, this man had to work all night and get up, and he slept all day.

Excerpt from the retelling of "The Pest" by a NFT reader:

Researcher: You talked about Hector's mom. Did you find out what kind of person she was?

Subject: Well, she sounded like a nice person.

Researcher: What would make you think that she might be nice?

Subject: Well, 'cause when my mom's sick, she's kind of in a bad mood.

Researcher: Uh-huh (affirmative).

Subject: I don't think his mom was in a bad mood.

At least one personal response was offered by each of eight FT readers (22% of the group, and by four NFT readers (11%). Thus, the FT group seems to have interacted with the story on a personal level to a slightly greater degree than the NFT readers.

However, when combined with the number of readers who produced inferences and misconceptions, other indications of interaction with the text, there is no significant difference between the interaction of FT and NFT readers.

Analysis of Stories 01, 05, and 06

Three stories were chosen for separate analysis because they involved the same number of readers for both the FT and NFT groups. These stories are 01 (two readers from each group), 05 (eight readers from each group), and 06 (ten readers from each group).

The variability of stories in terms of their relevance to a particular group of readers, the insights they are capable of providing, or the misunderstandings that are likely to develop indicate that a

comparison of the same stories by the same number of readers might result in a more significant statement than a combination of all the stories read.

The scores and other data for all three stories were averaged, and the results appear in Tables 19 and 20.

TABLE 19
SCORES OBTAINED FROM STORIES 01, 05 AND 06

	FT	NFT
Retelling Scores	63.2	62.5
Plot Statements	35%	25%
Theme Statements	63%	37%
Inferences	30%	10%
Misconceptions	60%	85%
Personal Responses	15%	10%

TABLE 20
MODES OF RETELLING STORIES 01, 05 AND 06

Organizational Responses	FT	NFT
Sequential Events	45%	50%
Kaleidoscopic	25%	25%
Main Events	15%	15%
Limited	10%	5%
Plot Statement and Events	5%	0%
Plot Statement	0%	5%

There are no statistically significant differences between the two groups with regard to any of the variables, except theme statements. The FT group produced a significantly larger percentage ($z = 3.77$; $p < .05$) of theme statements than did the NFT group. Only one of these theme statements was classified as non-functional. Three of the FT children offered more than one theme statement, as in the following example:

Excerpt from the retelling of "The Pest" by a FT reader:

Subject: Ah, teach to be friends and like, don't be enemies. You can be enemies, but you can always come back to friends Don't try to hurt anyone, and always go be safe By trying not to hurt anyone and trying to, ah, keep your hands to yourself

Because some stories have more obvious themes than others, it is considered particularly important that a significantly larger percentage of theme statements occurred when the same number of readers reading the same stories were compared.

Thus, it can be said that the FT readers were more able to apply the morals presented in these stories to a broader life situation, and this may be the result of a program which encourages children to formulate opinions and ideas and discuss them.

CORRELATION OF RETELLING SCORES WITH OTHER COMPREHENSION VARIABLES

The variables investigated in this study which directly relate to comprehension are the retelling score, the percentage of semantic acceptability, and the percentage of no meaning change.

As the following table (Table 21) indicates, there is a positive correlation between the retelling score and each of the other two variables for both groups.

TABLE 21
CORRELATION OF RETELLING SCORES WITH
OTHER COMPREHENSION VARIABLES

Variables:	Semantic Acceptability	No Meaning Change
FT	.34 $z = .043$.41 $z = .12$
NFT	.47 $z = .003$.45 $z = .005$

None of these correlations is particularly high, however. For example, the highest correlation is between semantic acceptability and the retelling score for the WPI group (.47). For this figure it can be stated with 95% certainty, according to statistical tests, that the true correlation between these two variables is somewhere between .33 and .59, and the coefficient of determination is .22, indicating a moderate correlation.

Although the retelling score and the semantic acceptability score are both measures of comprehension, the fact that the correlation is not high indicates that there are differences between the process of comprehending (as indicated by the semantic acceptability score and reflected in the meaning change score) and the final product of comprehension which is reflected in the retelling score.

The similarities and differences are to be expected. The degree of understanding which a reader has at any given moment during the reading process is not likely to be the same as the amount of surface information recalled and contributed during the retelling task.

Comprehending, which takes place during reading, is a language-processing phenomenon, primarily concerned with units of meaning which are smaller than the story as a whole. An individual may be processing language well but because of a lack of conceptual background, may not be able to comprehend the total story or the reader may be able to understand the story but not able to verbalize it, due to the differences between reading as a receptive process and retelling as a productive one.

One example of this lack of correlation between comprehending and retelling is FICQ2 discussed previously (see p. 18). This reader has a comprehending score of 86, but his retelling score is only 54, which is below the mean FI retelling score of 59.73. Therefore, the two phenomena -- comprehending and retelling -- must be considered separately but with the understanding that both contribute to the reader's overall comprehension.

There is a slight negative correlation between retelling scores and WPI on the average, indicating that as WPI increases, the retelling score actually decreases slightly, however (-.0413). As has been discussed, at the same time the FI score is above the mean of 59.73 which produces, but the ability to retell the story is still well

SUMMARY

Analysis of the retellings by all the criteria and variables discussed in this chapter reveals that there is no significant difference in retelling scores (the amount of surface information recalled) between stories, between FT and NFT groups, or between the two sexes within each group. A larger percentage of the FT group mentioned all the major events than did the NFT group, but this difference is not statistically significant. All the readers in both groups recalled all the major characters in their retelling, and all readers recalled at least one minor character.

There is also no difference between the groups with regard to the organization of the unaided portion of their retellings.

With regard to plot statements, there is no significant difference between the percentage of readers in either group who were able to produce them, and no significant difference between the two sexes within each group.

There is also no significant difference between the FT and NFT groups when comparing the percentage of readers in each group who produced both plot and theme statements, although the FT readers have a slightly larger percentage.

When all the stories are compared, there is no significant difference between the percentages of readers in each group, or between sexes within the groups, who produced theme statements. However, when stories 01, 05, and 06 are grouped together for separate analysis because of the even number in both groups who read these stories, the FT group produced a significantly larger percentage of theme statements, indicating that they are better able to apply the ideas in the stories to broader life situation, perhaps because of the strong language-based TEEM program which encourages discussion of ideas and concepts.

In addition, the FT readers produced a smaller (though not statistically significant) percentage of non-functional theme statements when all the stories are compared, indicating that they view the function of reading in slightly broader terms than do the NFT readers.

The production of inferences and personal responses show no significant differences between the FT and NFT groups, or between sexes in both groups, although the FT group as a whole produced a slightly larger percentage of personal responses.

A larger percentage of NFT readers produced misconceptions, and this difference, although not statistically significant, also indicates

that the opportunities for using language to formulate and clarify concepts may have given the FT readers an advantage.

A combination of the percentages of FT and NFT readers producing inferences, inceptions and personal responses, or any one or combination of these, reveals no significant differences.

The moderate correlation between the comprehending scores (semantic acceptability) and the retelling scores indicates that the two processes concerned with comprehension are different: comprehending is the processing of language, and retelling is the processing of all the ideas in the story. Both processes are considered to be important in determining the effectiveness of the reading.

The retellings of the FT and NFT readers reveal that these two groups are remarkably similar in their interaction with these stories and that they were both able to retell an average amount of the surface information. The FT group was better able to draw implications about life from the stories, and this may be a reflection of the instruction they have received.

CHAPTER SIX CONCLUSIONS

SUMMARY

This has been a comparative study of the reading of 73 Follow Through and Non-Follow Through children in Wichita, Kansas. At the time the reading sample was taken the children were in their seventh month of the third grade. Miscue analysis (a short form of the Reading Miscue Inventory, Goodman, Burke, and Lindberg, 1974) was the procedure and the instrument by which the reading was evaluated.

The children read a complete story from first through sixth grade basal readers. Following the reading they retold the story and answered open-ended questions about it.

Audiotapes of this procedure were transcribed and the data analyzed to discover similarities between the FT and NFT readers and differences which might be the result of instruction.

RESULTS

The FT and NFT children as a group show evidence of effective and developing strategies. When grade level is used as the criterion, it can be said that only 13% of the FT and 19% of the NFT readers read stories below grade level, and 84% of the FT and 77% of the NFT readers were able to read and retell stories above grade level. When number of miscues is used as the criterion, the mean MPHW produced by the two groups is well within the average range.

Miscue analysis, however, does not use either of these criteria in isolation to determine the proficiency of the reading; rather, it is concerned with the pattern which emerges when many factors are taken into consideration.

Follow Through Readers

The pattern which emerges for the FT group as a whole is one of effective reading, especially with regard to their high averages in the three categories of sentence-level evaluation: syntactic acceptability, semantic acceptability and meaning change.

On the word level, they are within the appropriate range of miscues with high sound similarity to the expected response (ER). Graphic similarity is high for this group, but this is partially because of dialect miscues and substitution miscues on names, both of which were high in graphic similarity for these readers.

Both graphic and sound similarity give a negative correlation with retelling scores for this group, a phenomenon which Goodman found only among sixth graders and older children in his 1973 study.

Evidence of a developing strategy is found in the correlation between syntactic acceptability and miscues which are the same grammatical function as the ER. This correlation was identified only in the reading of second graders in Goodman's study (Goodman, 1973).

Evidence of efficient strategies is offered by the significantly smaller percentage of unsuccessful corrections and the significantly larger percentage of miscues not corrected by the FT group, while the syntactic and semantic acceptability scores between the groups show no significant differences.

Mean retelling scores for the group are above average, and the FT groups reading stories with the same number of readers as the NFT group produced a significantly larger percentage of theme statements.

Despite the differences between the groups in favor of the FT readers, they were rated significantly lower in reading ability by their teachers than the NFT readers.

Non-Follow Through Reading

The pattern which emerges for the NFT group as a whole is a lack of effective and developing strategies. This group is similar to the FT group with regard to their mean scores for syntactic and semantic acceptability and meaning change, as well as for the categories of graphic similarity, sound similarity, and grammatical function.

Evidence of a developing strategy is found in the correlation between the variables of semantic acceptability and sound similarity, which occurred only in the reading of the second and fourth graders in Goodman's 1973 study.

The NFT readers appear to be less efficient than the FT readers, as indicated by their correction strategies. They have a significantly smaller percentage of miscues which were not corrected. Because the syntactically and semantically acceptable scores between the groups show no difference, these correction score indicate that the NFT group wasted too much time on

unsuccessful attempts at correction, and that many of the uncorrected miscues of the FT group were syntactically and semantically acceptable with little or no meaning change.

With regard to the retellings, the NFT group has a mean score which is not significantly lower than the FT group's and which is above average. The NFT readers produced a larger (but not statistically significant) percentage of misconceptions.

IMPLICATIONS

Significant differences between the groups can indicate that there are factors in the school program which have caused these differences to occur. It is, of course, recognized that children's experiences outside the school may have an even more profound effect on their performance than any instruction which the school provides. However, the FT children were originally entered into the Tucson Early Education Model (TEEM) program because it was felt that their outside experiences would not result in equivalent academic performance with other children. Therefore, the assumption made here is that the differences in favor of the FT group are due to the differences in the programs of the FT and NFT children.

For example, the slightly smaller percentage of misconceptions and the significantly larger percentage of theme statements produced by the FT children may be the result of languaging in the TEEM classroom, where ideas are valued and children are free to clarify concepts through discussion.

The more efficient reading strategies demonstrated by the FT children indicate that one view of reading to which these children have been exposed is that of a process in which the reader takes an active part, interpreting the language and concepts of the author and occasionally predicting different structures in accord with the reader's understanding and language.

On the other hand, the evidence of dialect correction and super-correction indicates that both the FT and NFT speakers of divergent dialects have experienced interference with their language during reading, and this is the important area in which FT and NFT teachers must make a distinction: *If the use of standard dialect is to be taught to these children, it should not be taught during reading.*

NFT readers are much more concerned with a precise reading of the text, as indicated by their high percentage of unsuccessful corrections

and the correlation for these readers between semantic acceptability and sound similarity.

That the reading of the two groups is remarkably similar in every respect except those mentioned above is not surprising for two reasons. First, because there is only one reading process and all readers use that process (although with varying degrees of proficiency) it is to be expected that there will be similarities. This natural processing of language can be interfered with, resulting in differences between groups of children who have received dissimilar kinds of reading instruction. For these two groups of children, however, the reading instruction they received in third grade had more similarities than differences. A reinspection of Table 3 will demonstrate that this is so. Both groups used basal readers. None of the FT teachers indicated that "trade" (library) books were an important part of their program. Differences in favor of the FT readers may be attributable more to differences in the program in prior years than to the third grade program.

SUGGESTIONS FOR FUTURE RESEARCH

Follow Through Research

As has been mentioned, this study has some limitations which could be remedied in future research of this type. Recognizing the value of hindsight, this writer makes the following recommendations with respect to these limitations:

1. There should be more training time for researchers who collect the data. The retelling procedure is different from all other comprehension evaluation, and the questioning technique requires time and practice, as well as a thorough understanding of the principles behind the procedure.
2. More time should be allowed for the testing of stories to be used in the study. As was discussed in Chapter Two, one of the stories in this study was particularly successful in terms of readability and the understanding the children obtained from it. It is important to provide high-quality reading materials for children at every level.
3. There should be more extensive information available about each child's language background, in the form of records and language samples.
4. An assessment of teacher behavior and attitudes in conjunction with the analysis of the children's reading might provide a clearer picture of the amount of reading instruction the children are receiving and result in a more definitive statement about the contributions the program has made.

General Reading Research

The data in this study and other miscue research (Goodman, in press) has raised a number of questions with regard to reading and comprehension which were too complex to explore within the parameters of this report. Further research would be valuable in relation to the following questions:

1. To what extent is the child's organization of the unaided portion of the retelling developmental or the result of instruction?
2. Are misconceptions more a function of personality or cognitive confusion? To what extent do miscues in reading affect these misconceptions?
3. What are the elements or combination of elements which are most influential in causing one story to be more easily understood than another?
4. To what extent is semantics dependent upon syntax? Are the two separable to a degree?
5. How different would the pattern appear if all miscues were judged on the basis of their acceptability with prior miscues? Would such a study provide more information about the silent correction phenomenon?

The major difficulty encountered in the writing of this report was due to the fact that this particular form of the RMI has never been used in research, and there was no precisely equivalent data with which to compare the results.

It is hoped that this report will be of some value to those who use this form in the future.

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A P P E N D I X A

STORIES USED IN MISCUE ANALYSIS STUDY

Title	Source	Pages
One, Two, Three, Go!	Around the City (Bank Street Series) MacMillan Company, NY, 1965	60-64
Presents Don't Walk Away	Blue Dilly Dilly Economy Company Oklahoma City, 1977	34-39
The Voice from the Deep	Far and Away American Book New York, 1968	50-56
The Monster	City Sidewalks (Bank Street Series) MacMillan Company, NY, 1968	152-159
The People Downstairs	Young America-II Lyons & Carnahan Chicago, 1972	10-17 (with deletions)
The Pest	Basic Reading-J Lippincott, NY, 1975	290-297
Maria's Big Experiment	Galaxies Houghton-Mifflin Boston, 1974	56-61

A P P E N D I X B

INSTRUCTIONS TO RESEARCHER

Procedure for Selecting Story for Child

Ask the teacher to select the best readers in the class. Are there any in that group who are especially superior? Now have the teacher select the least effective readers. What is left will be considered average. If the teacher can't decide whether one child should be considered least effective or average, put the child in the average group. If a child is on the borderline between average and effective in the teacher's opinion, put the child in the effective group. You should be able to group the children in this manner according to the following categories: Superior, Effective, Average, Least Effective.

When to Change Levels

If -- and only if -- the child shows extreme frustration and/or can only pick out a few words in each sentence that are known, drop back one level. However, give the child a chance to read at least two pages of the story before you make that decision. Watch carefully to see if the child is figuring out words that were not read at the beginning of the story or for signs that the child is getting into the story and starting to relax.

If the child is reading correctly but very stiltedly, go ahead with the unaided retelling. If the child does have good understanding, then complete the retelling and if time permits, go back to that child with the higher level story at a later time. However, if the child is reading fluently and is obviously enjoying the story, let the child finish it, but skip the retelling and go on to the higher level selection. (Be sure to remind the child at that point that he or she will be retelling this next story.)

or

Why do you think _____ did that?
Character mentioned by subject

or

Why do you think _____ happened?
event mentioned by subject

or

How do you think _____ happened?
event mentioned by subject

NOTE: ALWAYS USE THE READER'S PRONUNCIATION OF NAMES OR NON-WORDS
WHEN YOU ASK QUESTIONS ABOUT THOSE ITEMS.

3. Follow up most reader's statements with: Why do you think so?

or

What in the story made you think so?

4. When all the subject's information has been used to further the retelling, use open-ended questions to obtain additional retelling information. Ask:

Who else was in the story?

Provide time for response and follow up with:

Tell me about _____.
name mentioned by subject

Ask: Where did the story take place?

After time for response, follow up with:

Tell me more about _____.
place mentioned by subject

5. Whenever the subjects use non-words, allow them to finish their comments or answers and then ask a question about the non-word. Try to place the non-word in a sentence context or summarize the situation in which the subject used the non-word. Ask:

Remember when you said _____ used a _____ to
character named by subject non-word

_____? Can you explain that to me?
event mentioned by subject

or

What did you mean by that:

2. Using an appropriate verb (cry, laugh) which relates to aspects of the retelling or to the subject's reactions that you observed when they were reading, ask:

Was there a part in the story that made you want to cry?

Was there a part in the story that made you want to laugh?

Questions to Elicit Evaluation or Judgement

1. Is there anything you would have changed in the story?
2. Did you like the story? Why or why not?
3. Would you have changed the ending?
4. What did you think about the part where _____?
major event mentioned by subject
5. What did you think about _____ when
major character subject has mentioned
he _____?
major event mentioned by subject

Avoid . . . Avoid

1. Giving subjects two or three questions to deal with at a time.
2. Taking "I don't know" for an answer. Try to rephrase the questions and get at the information another way.
3. Giving information in your questions.
4. Changing the subject or direction of the retelling. Permit the subjects to completely develop an area before you switch to another.
5. Hurrying. Be patient and give the subjects time to think and respond. Silence and waiting patiently for response is a good technique of questioning.
6. Closed questions which permit single word answers or lead subjects down the path you want him to take.

A P P E N D I X D

MARKING THE WORKSHEET

Substitution:

Two sets of rollers ran along the ^{side} slide.

Omission:

"I AM THE VOICE FROM THE DEEP," boomed the voice.

Reversal:

"There is someone down there!" Dan said.

Running Start:

(RS) "JUST WAIT TILL I TAKE THE CANS OUT OF IT!"

Intonation and Correction:

The boys were on their way to the stores, for Dan wanted a box.

Abandon Correct:

(AC) they
Soon, all the boxes that had been on the truck were on their way into the cellar.

Non-word:

"S-Sorry I disturbed you," Maria stammered.

A P P E N D I X E

"Maria's Big Experiment"

Points Assigned

20

Characters

- 7 - Maria
- 6 - Diane
- 3 - Sandy
- 4 - Dr. Snow

15

Development

- 6 - Maria
 - shy
 - interested in science
 - wanted to be liked
 - honest
- 6 - Diane
 - did everything well
 - friendly
 - popular
 - interested in science; had won 1st prize for 2 years
 - generous
- 2 - Dr. Snow
 - kind
 - intelligent
- 1 - Sandy
 - one of Diane's friends

65

Events

- 4 - Maria and Diane worked on their science projects.
- 2 - Some girls came into the room to get Diane. Diane invited Maria to the Malt Shop, but Maria refused.
- 6 - Maria thought she could be popular if she won the first prize in the Science Fair, but she knew Diane's idea was better.
- 6 - The next day Diane was looking at Maria's experiment. Asked Maria what would happen if some of the buds on the plant were kept out of the sun and others left in the sun.
- 6 - Maria got the idea of putting little bags over some of the buds. Diane and Sandy saw her and Sandy asked what she was doing.
- 3 - Maria had strange, gnawing feeling after that whenever she saw Diane.
- 4 - On the day of the Science Fair, more people seemed interested in Maria's experiment than in Diane's.
- 4 - Dr. Snow asked Maria some questions, made some marks in a book, and went on.
- 7 - Dr. Snow announced that Maria had won first prize.

- 3 - Diane and other girls ran to congratulate Maria and she remembered why she had been feeling funny about Diane.
- 6 - Maria confessed that it had been Diane's idea.
- 4 - Diane was surprised that that was why Maria had been avoiding her. She said it was Maria who had figured it out, and Dr. Snow agreed.
- 6 - Diane invited everyone to her house to celebrate, and Maria realized that Diane was popular not because she did everything well, but because she was so nice to everyone.
- 4 - Maria said that everyone should go to her house instead and thought to herself that she would be different from now on.

Extra
Points

10

Incidental Information

- 5 - Hydroponics: growing things in chemicals rather than in soil.
- 5 - Description of Maria's experiment: one plant was given sun, water, food and air. Each of the other plants had been denied one of these elements.

Theme: When we are not sure of ourselves, we assume that other people don't think highly of us. Or, if you want to have friends, you have to be open to them.

Plot: Maria finds out that what she thought was someone else's idea was really her own, and she starts to feel better about herself.

Inferences: What Maria meant by "the new me "