A PSYCHOLINGUISTIC ANALYSIS OF THE ORAL READING BEHAVIOR OF SELECTED PROFICIENT, AVERAGE AND WEAK READERS READING THE SAME MATERIAL

> Thesis for the Degree of Ph. D. MICHIGAN STATE UNIVERSITY LOUISE JONES JENSEN 1972





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This is to certify that the

thesis entitled

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ABSTRACT

A PSYCHOLINGUISTIC ANALYSIS OF THE ORAL READING BEHAVIOR OF SELECTED PROFICIENT, AVERAGE AND WEAK READERS READING THE SAME MATERIAL

By

Louise Jones Jensen

Through a descriptive analysis of the oral reading behavior of three groups of readers, this study compares the oral reading behavior of proficient readers with that of readers who use less effective reading strategies. Discovery of those characteristics which are manifested by effective readers should enable researchers to develop a theory and a related model of the reading process which will influence the design of instructional programs in reading.

The subjects are five proficient second grade readers, five weak sixth grade readers and five highly proficient sixth grade readers. Each of the subjects read the same third grade story orally. The reading was tape recorded and analyzed by means of the Goodman Taxonomy of Reading Miscues.

<u>Miscues</u> or mismatches between text and oral response are considered to be "cued" or caused and are generally explicable because they are principled, motivated and rule-governed. The Goodman Taxonomy of Reading Miscues provides a number of questions to be asked about each miscue to enable the researcher to analyze the interaction of grapho-phonic, grammatical and semantic information as it is processed by the reader. The results of the study were as follows:

- When the proficient readers miscued, their substitutions showed less graphic similarity to the text item than did those of the weaker readers.
- The miscues of the proficient readers resulted in a higher percentage of syntactically acceptable sentences.
- 3. The miscues of the proficient readers involved a higher percentage of re-transformations and alternate options while retaining acceptable deep structure.
- 4. The miscues of the proficient readers changed syntax on a higher percentage of occasions than did those of weaker readers.
- The degree of success in retaining meaning was much higher in the proficient readers.
- 6. The number of miscues involving intonation was not significant.
- Most differences at the bound morpheme level involved the substitution of alternate inflections due to dialect and as such, were not serious.
- 8. The proficient readers made fewer substitutions but a higher percentage of omissions, insertions and reversals. This is directly related to their freer use of optional transformations.
- 9. The proficient readers substituted fewer non-words, reflecting their concern with meaning and their conceptual experience.
- 10. The proficient readers made changes at the phrase level with a larger percentage of their miscues than did the other groups.
- 11. As with phrase change, clause level change was higher for the proficient readers, but the difference between groups was not so great. This category involves deep structure to a greater

extent, and a larger percentage of the proficient readers' miscues were at the surface level.

- 12. The proficient readers made much better use of correction strategy than did the other two groups. They were aware of the structures which required correction and were usually successful in making that correction.
- 13. The word level substitutions of the proficient readers showed a much higher relationship to the text than did those of the weaker readers.

The data suggest an instructional model directed toward meaning rather than the processing of visual information. The weak readers over-used grapho-phonic skills to the detriment of meaning. A program for beginning reading would be built around a total language program with the role of the school being that of providing substantial amounts of data from which children could develop symbol to sound generalizations in much the same way that their oral language was acquired.

All reading should take place in a natural language context. Materials should be interesting and meaningful. Children should be encouraged to read a great deal and the experience should be as rewarding and free from threat as possible. The premium on accuracy should be reconsidered.

Reading, like language, "is learnt in operation, not by dummy runs" (John Dixon 1967:13).

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TABLE OF CONTENTS

Chapter		Page
I	INTRODUCTION	1
	Rationale	1
	Design	1
	Procedure	3
	Related research	9
II	THE GRAPHO-PHONIC SYSTEM	12
	Introduction	12
	Grapho-phonic proximity	13
	Grapho-phonic proximity and comprehending	22
	Non-words	25
	Phonics generalizations	26
III	THE SYNTACTIC SYSTEM	43
	Introduction	43
	Syntactic acceptability	44
	Syntactic change.	48
	Transformations	54
		66
		67
	Structural levels	76
	Mornhology	70
		. 70
		/0
		90
		. 96
		101
IV	THE SEMANTIC SYSTEM	103
	Introduction	103
	Semantic acceptability.	105
	Syntactic and semantic acceptability.	107
	Syntactic and semantic change	110
	Comprehending	115
	Miscuse per hundred words	116
	Sementia until relationshine	116
		105
		123

Chapter

V	CORRECTION STRATEGY
	Introduction
VI	CONCLUSIONS AND INSTRUCTIONAL IMPLICATIONS
	Conclusions
BIBLIOGRAF	РНҮ
APPENDIXES	5
A	BILLY WHITEMOON
В	GOODMAN TAXONOMY OF READING MISCUES - SHORT FORM 166
С	STANFORD DIAGNOSTIC READING TEST

Page

LIST OF TABLES

Table		Page
1	PERCENT OF GRAPHIC PROXIMITY, GROUP 6L	14
2	PERCENT OF GRAPHIC PROXIMITY, GROUP 2A	15
3	PERCENT OF GRAPHIC PROXIMITY, GROUP 6H	16
4	PERCENT OF PHONEMIC PROXIMITY, GROUP 6L	17
5	PERCENT OF PHONEMIC PROXIMITY, GROUP 2A	18
6	PERCENT OF PHONEMIC PROXIMITY, GROUP 6H	19
7	MEAN GRAPHIC SCORES FOR EACH SUBJECT	20
8	RELATIONSHIP OF MISCUES TO GENERALIZATION-GOVERNED WORDS	34
9	SYNTACTIC ACCEPTABILITY	45
10	SYNTACTIC CHANGE, GROUP 6L	50
11	SYNTACTIC CHANGE, GROUP 2A	51
12	SYNTACTIC CHANGE, GROUP 6H	52
13	TRANSFORMATIONS, GROUP 6L	. 62
14	TRANSFORMATIONS, GROUP 2A	63
15	TRANSFORMATIONS, GROUP 6H	64
16	INTONATION	. 68
17	DIALECT, GROUP 6L	. 71
18	DIALECT, GROUP 2A	, 72
19	DIALECT, GROUP 6H	73
20	DIALECT / COMPREHENDING RELATIONSHIP	. 75
21	MORPHOLOGY, GROUP 6L	. 79
22	MORPHOLOGY, GROUP 2A	. 80
23	MORPHOLOGY, GROUP 6H	. 81

24	FREE MORPHEMES, GROUP 6L
25	FREE MORPHEMES, GROUP 2A
26	FREE MORPHEMES, GROUP 6H
27	FREE MORPHEME TYPES, GROUP 6L
28	FREE MORPHEME TYPES, GROUP 2A
29	FREE MORPHEME TYPES, GROUP 6H
30	PHRASE, GROUP 6L
31	PHRASE, GROUP 2A
32	PHRASE, GROUP 6H
33	CLAUSE, GROUP 6L
34	CLAUSE, GROUP 2A
35	CLAUSE, GROUP 6H
36	SEMANTIC ACCEPTABILITY
37	SEMANTIC CHANGE, GROUP 6L
38	SEMANTIC CHANGE, GROUP 2A
39	SEMANTIC CHANGE, GROUP 6H
40	MISCUES PER HUNDRED WORDS / COMPREHENDING
41	SEMANTIC RELATIONSHIPS, GROUP 6L
42	SEMANTIC RELATIONSHIPS, GROUP 2A
43	SEMANTIC RELATIONSHIPS, GROUP 6H
44	PERCENT OF MISCUES CORRECTED, GROUP 6L
45	PERCENT OF MISCUES CORRECTED, GROUP 2A
46	PERCENT OF MISCUES CORRECTED, GROUP 6H
47	PERCENT OF CORRECTIONS FOR SYNTACTIC ACCEPTABILITY 134
48	PERCENT OF CORRECTIONS FOR SEMANTIC ACCEPTABILITY 135

vi

LIST OF FIGURES

Figure		Page
1	GRAPHIC PHONEMIC RANGE AND MEANS	21
2	GRAPHIC AND PHONEMIC MEANS	21
3	COMPREHENDING SCORES	22
4	GRAPHIC MEANS vs COMPREHENDING MEANS	24
5	SYNTACTIC ACCEPTABILITY	47
6	MEANS OF TOTALLY ACCEPTABLE AND TOTALLY UNACCEPTABLE SYNTAX	49
7	SYNTACTIC CHANGE	53
8	TRANSFORMATIONS	65
9	DIALECT / COMPREHENDING RELATIONSHIP	75
10	PHRASE LEVEL MISCUES	95
11	SEMANTIC ACCEPTABILITY	108
12	DEGREE OF SYNTACTIC AND SEMANTIC ACCEPTABILITY - MEANS .	109
13	DEGREE OF SYNTACTIC AND SEMANTIC CHANGE - MEANS	114
14	COMPREHENDING RANGE AND MEAN	117
15	SEMANTIC RELATIONSHIPS	123
16	PERCENT OF CORRECTIONS RANGES AND MEANS	132
17	UNCORRECTION AND CORRECTION FOR SYNTAX	136
18	UNCORRECTION AND CORRECTION FOR SEMANTICS	137
19	COMPOSITE GRAPH OF DATA (PARTS 1 THROUGH 4)	140- 143

CHAPTER I: INTRODUCTION

Rationale:

Through a descriptive analysis of the oral reading behavior of three groups of readers, this study compares the oral reading behavior of proficient readers with that of readers who use less effective reading strategies (here termed weak readers). Discovery of those characteristics which are manifested by effective readers should enable researchers to develop a theory and a related model of the reading process which will influence the design of instructional programs in reading.

Design:

Most research studies deal with a few variables over relatively large groups. This study, which attempts to describe all the possible variables in reading miscues, is a depth study and as such, it is limited to a small number of subjects. Even though the subject number is low, the results are statistically valid, since fifteen variables for one subject generates the same volume of data as one variable for fifteen subjects. A total of 1662 miscues was recorded and analyzed; basic statistical procedures were handled through computer program.

A study such as this introduces the problem of comparing reading behavior across stories.

One developmental trend was the greater percent of alternate options which the average readers produced, 5% and 4%, than the slower readers, .5% and 2%. This may be related to the different types of material read

by the two groups. The material read by the average readers represents a much greater variety of syntax which allowed for alternate optional transformations to a greater extent than the primer and first grade material read by the slow readers. (Goodman, Y. 1971:50)

In order to control for difference in structure and conceptual load of the material, the present study investigates proficient and weak readers reading the same story, "Billy Whitemoon" from *Along Friendly Roads*, 1963 (Appendix A). The grade level suggested by the publisher is third grade, second month.

The subjects were obtained by teacher selection rather than by standardized tests, none of which examine reading as a language process involving the simultaneous interaction of phonological, syntactic and semantic systems (see p. 5). Teachers were asked to rank order their students in the presence of the researcher with no opportunity to consult test scores. This selection is somewhat arbitrary but the research instrument enables detection of readers whose characteristics differ from others placed within the same group.

The weak readers are the bottom five from the list of a sixth grade teacher at Sampson School, Detroit, Michigan.

The average readers are a group of second graders, also from Sampson School. They are the sixth through tenth in the rank ordering of the second grade class. Since the story is approximately a third grade level, the average readers were chosen from second grade so that the task would be sufficiently difficult to generate adequate miscueing information.

A third group of students has been included in the study. These are proficient sixth grade readers from Kinawa Middle School in Okemos, Michigan. Since they are proficient readers reading a simple story,

their reading behavior in the given task might be termed "highly proficient." They probably epitomize excellent reading behavior. None of these students produced enough miscues to provide a significant sample for analysis, consequently, individual statistics are not dependable. However, the group data provide some interesting phenomena of excellent reading against which to compare the reading of the other two groups.

Following is a list of subjects by name and number:

6L	2 A	6н
188- Bennie	121- Graeme	601- Kathy
189 - Thurman	122- Kevin	602- Nancy
190- LeRoy	123- Deborah	603- Warren
191- Stanley	124- Russell	604- Marlene
192- Danetta	125- Cheryl	605- Kurt

Procedure:

Each subject read a complete story into a tape recorder after which he freely retold what he had read. Emphasis was placed on having the material at a level which would initiate some reading difficulty without causing the subjects to give up on the task. Each miscue was then analyzed for its relation to the text and the reading process.

The instrument by means of which the oral reading was studied is the Goodman Taxonomy of Reading Miscues (Appendix B).

The Taxonomy is based on the following psycholinguistic model of the reading process.

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A writer starts with meaning. He then assigns a deep underlying grammatical structure. Using the transformational rules, he then generates a surface structure. Finally, he utilizes the rules of English orthography (spelling, punctuation) to produce the graphic display. The reader must infer from that graphic display the rules that have produced it and its underlying deep structure. Only then can he reconstruct the writer's message, that is, comprehend the meaning. If he is reading orally, the reader must then encode the message as oral output producing an oral surface structure. (Goodman, K. 1972:147)

The psycholinguistic model of the reading process differs basically

from "traditional" and "linguistic" views.

Traditionally, reading has been considered to be a process of "decoding" print into speech, either vocally or sub-vocally, and responding to the speech signal thereby deriving meaning.

... reading a word involves looking at a group of marks, thinking the word-sound that those marks stand for, and recognizing the meaning for that word sound. (Durr 1965:75)

This view of reading leads directly to instruction devised to teach spelling to sound relationships and various programs were devised with the intention of doing this. Leonard Bloomfield (1925) became concerned that existing phonics programs were not based on sound linguistic principles.

Our schools are conducted by persons who, from professors of education down to teachers in the classroom, know nothing of the results of linguistic science, not even the relation of writing to speech or of standard language to dialect. (Bloomfield 1925:5)

From the work of Bloomfield and later Fries (1963), various "linguistic" approaches emerged which were essentially phonics programs but based on scientific phonological principles.

A view of reading which is based on symbol to sound relationships results in instructional methods and testing techniques designed to deal with the child's abilities to relate letter to sound. Chapter Two, "Grapho-phonics," provides a detailed analysis of the degree of success attained by the subjects of the present study as they dealt with print to sound relationships.

However, a psycholinguistic point of view, one which maintains that reading is much more than grapho-phonic processing, necessitates investigation of the function of all the language systems: phonology, syntax and semantics.

Standardized reading tests do not deal adequately with reading as a total language process, but rather with fractionated particles of language taken out of context, such as phonics relationships, vocabulary, etc. Reading comprehension tests provide short paragraphs which do usually contain language in context, however, there is no attempt to discover exactly how the reader has handled the material but only how he is able to answer a set of questions which often deal with quantitative details.

One widely used reading instrument, The Stanford Diagnostic Reading Test, Level II, consists of the following six sections: 1) reading comprehension, 2) vocabulary, 3) syllabication, 4) sound discrimination, 5) blending, 6) rate of reading (see Appendix C for examples of test items).

Test 1), reading comprehension, consists of a series of short paragraphs with blanks which students are required to fill by choosing a suitable word from a list of four. This is essentially a vocabulary test. Test 2), vocabulary, is similar with the teacher reading a sentence and the student choosing an appropriate completion. Test 3), syllabication, tests the student's ability to divide words into syllables according to some pre-taught arbitrary conventions established for printing. Test 4), sound discrimination, requires the student to match sounds across words. Usually the sound in the sample word is matched with the same sound in the answer word spelled in quite a different way, e.g., they, tail; jump, bridge; dinner, picture. Test 5), blending, gives scrambled syllables and asks students to put them together into words. This is an extremely unnatural process and it is difficult to see its relationship to reading.

> e.g.osp Oo Obb Opr Oi Oll Answer: spill

Test 6) is a test of reading rate. Students are asked to read a piece of material but have normal eye movements and syntax disrupted by choices which are based on knowledge rather than reading ability.

e.g. 1 Many years ago people thought that when
2 North America was discovered by
3 O Columbus O Edison O Washington
4 there were wild horses here. We now know
5 that this was not true. The Indians had
6 O always O often O never
7 seen horses before the Spaniards arrived.

On line 6, the student is required to adopt one of two actions, neither of which is part of fluent reading, 1) make a choice of <u>always</u>, <u>often</u> <u>never</u>, before he knows what is to follow, or, 2) proceed to the next line and regress to find the correct word.

It is not the purpose of this study to investigate in detail the characteristics of existing reading tests, however, it is necessary that the instrument chosen to describe and analyze the reading behavior of the selected subjects be one that examines reading as a total language process. When a miscue, or mismatch between the text and the oral response occurs, it is necessary to look at all aspects of the reading process to determine the way in which each is involved in the observed behavior. This the Goodman *Taxonomy* was specifically designed to do.

The Goodman Taxonomy of Reading Miscues provides a number of questions to be asked about each miscue, since the reader has, in every case, produced his response through the use of the wide range of information available to him in the reading process. Each question is answered on its own merits and the researcher does not have to choose between possible cues and causes. (Goodman, Y 1971:3)

The term "miscue" is used rather than "error" or "mistake" because these deviances from the text are not random but caused. For example, the reader may substitute a word graphically similar to the text item or make a faulty prediction based on the frequency of certain patterns and combinations.

Any observed response (OR) which differs from the expected response (ER) is marked as a miscue.

After the student's reading has been recorded on tape, a copy of the text is marked and from this marked copy all the miscues are coded by working through the twenty-eight categories of the *Taxonomy*. Because some of the marking conventions appear in examples given throughout the present work, they are included here.

Basically four types of miscues occur: substitutions, insertions, omissions and reversals.

- 1. Substitution A little fawn.
- 2. Insertion He tied the sticks to the broken leg.
- 3. Omission They found a good) place to camp.
- 4. Reversal "He's my deer", said Billy,

Sometimes readers substitute non-words in place of words they do not recognize. These non-words are indicated by a dollar sign.

\$frawn e.g. Poor little fawn.

A brief illustration of the operation of the *Taxonomy* is presented here by proceeding through the various categories with one sample miscue.

```
$carberries
Russell: They would spend days picking the ripe cranberries
which they put in boxes and sent to the city.
```

46 - Correction- 0 - miscue not corrected.

- 47 Dialect 0 not a dialect alternative.
- 48 Graphic similarity 7 beginning, middle and end similar.
- 49 Phonemic similarity 7 beginning, middle and end similar.

50 - Allolog - 0 - not an allolog.

51 - Syntactic acceptability - 4 - totally acceptable syntactically. The non-word is inflected appropriately so acceptable syntax is maintained.

- 52 Semantic acceptability 0 The use of a non-word necessitates a decision that the meaning has been lost. The researcher cannot determine that the reader has a meaning for the nonword he uses.
- 53 Transformation 0 the reader has maintained the grammatical structure of the writer.
- 54 Syntactic change 9 no syntactic change.
- 55 Semantic change blank categories 54 and 55, syntactic and semantic change, are coded only when the sentence is acceptable syntactically and/or semantically.
- 56 Intonation 0 no intonation change.
- 57 Submorphemic level 5 multiple minor variations.
- 58-59 Bound morpheme level 00 no change. The plural inflection has remained intact.
- 60-61 Word level 17 substitution of a non-word.
- 62 Phrase level 0 no change.
- 63 Clause level 0 no change.
- 64 Blank
- 65-69 Grammatical function the presence of the inflectional ending indicates that the grammatical function is still noun.
- 99999 represents unchanged grammatical function.
- 70-71 Semantic word relationships blank. The semantic relationship between a real word and a non-word cannot be determined.

Related research:

Other studies have been conducted using the Goodman Taxonomy of Reading Miscues but none has compared various groups reading the same material. Y. Goodman (1967) analyzed the oral reading of a group of beginning readers over a period of one year. The results of her research demonstrated that a depth study of the oral reading behavior of a group of children using a miscue analysis is highly productive of knowledge about the total language process. In general, miscues affected meaning change more than syntactic change, and they resulted in increased semantic and syntactic acceptability with time.

The study by Goodman and Burke (1968) confirmed the interplay of semantic, syntactic and grapho-phonic information in the reading process of proficient fourth and fifth graders. All of the children seemed to have a solid control of the grammatical structures of the language and tended to correct or not correct, depending on whether or not the miscue resulted in grammatical patterns which were totally unacceptable, and a very high percentage of their miscues produced fully acceptable grammatical patterns.

Dorothy Menosky, 1971, analyzed reading behavior in various portions of text by readers in grades two, four, six, and eight. The study revealed that quantity and quality of miscueing changes as readers progress through a given piece of material. It indicated that reading becomes easier as context is developed. Some involvement in the plot provides a basis for prediction. Menosky's study has direct relevance to the construction of comprehension tests which are usually based on one or two short paragraphs.

A study conducted by William Page, 1970, involved a proficient second grade reader, an average fourth grade reader and an average sixth grade reader encountering ten basal reader selections ranging from pre-primer to sixth grade. The major finding of Page's study was

that as the material became more difficult, the readers processed the graphic information more accurately.

Peter Rausch, 1972, conducted research to determine the influence of prior conceptual knowledge of the subject matter of the text on reading behavior. His study revealed that those readers with a clear understanding of the subject matter of a piece of material performed much more successfully than those for whom the material was unfamiliar.

The effectiveness of materials written in Black English for early reading instruction of speakers of the dialect was investigated by Rudine Sims, 1972. The study showed that the dialect material had no influence on the quality or quantity of miscues produced by the subjects who were selected for the similarity of their spoken dialect to that of the texts used.

Rose-Marie Weber, 1970, analyzed reading errors according to level of sounds and letters, word structure, grammatical structure, and semantic consistency. Her conclusions indicated that the structure and meaning of language influence how children read and that children grow in their efficient use of letter-sound patterns.

Introduction:

Reading at its proficient best is a smooth, rapid. guessing game in which the reader samples from available language cues, using the least amount of available information to achieve his essential task of reconstructing and comprehending the writer's meaning. It can be regarded as a systematic reduction of uncertainty as the reader starts with graphic input and ends with meaning. The reader need not use all the graphic cues available in the printed page, nor is he restricted to them. As a user of language, he has both syntactic and semantic input to relate to graphic cues and interact with them. He uses graphic cues, perhaps supported by related phonological cues, to help predict grammatical sequences; he uses graphic and grammatical cues to trigger the search of his memory for related meaning; and he uses all, in turn, to predict subsequent input.

He is, then, at all times utilizing three sources of information interdependently:

- 1. Grapho-phonic information
- 2. Syntactic information
- 3. Semantic information (Goodman, K 1972:154)

Although the reader is at all times making use of all three language systems, grapho-phonic, syntactic, and semantic, it is the graphophonic which is the most obvious. Reading is, after all, a processing of visual information. Common sense tells us that reading is a matter of converting written symbols to spoken symbols and from there to meaning. Response to print in terms of simple conversion of letter to sound is observable behavior, grammatical competence and cognitive structure are not. Consequently, reading instruction and measurement have tended to deal with that observable behavior. Any indication of reading weakness, then, implies ineffective knowledge or use of

grapho-phonic skills. Remediation programs, naturally, concentrate on the upgrading of phonics skills.

Grapho-phonic proximity:

The present study investigates the relative effectiveness of the the processing of grapho-phonic information by the subjects in the three groups. The Goodman Taxonomy of Reading Miscues examines each substitution of a single word observed response for a single word expected response in terms of graphic and phonemic proximity. This analysis reveals the effectiveness with which readers are making use of graphic and phonemic cues available to them. The substitutions are graded on a ten point scale increasing in similarity from 0 - no graphic or phonemic similarity to 9 - homograph or homophone (see Taxonomy, Appendix B). These categories are not coded if the miscue is an omission or an insertion. The nine point scale may be reduced to four categories: 1) no similarity, 2) slight similarity, 3) moderate similarity, 4) high similarity.

Tables 1 to 6 show the percentage of miscues falling into each of the four categories.

In order to interpret the above findings more easily, means were calculated for each subject. For each group, graphic proximity is higher than phonemic proximity. These figures reflect the relationship between the phonemes of the language and the written symbols used to represent them as well as the reader's preference for graphic cueing. When operating on graphic and phonemic cues only, the reader must move through the graphic symbols to reach the phonemic realization. For this reason, the miscues are more likely to *look* like the expected response rather than *sound* like them.

PERCENT OF GRAPHIC PROXIMITY

GROUP 6L

SUBJECT	NO SIMILARITY	SLIGHT GRAPHIC SIMILARITY	MODERATE GRAPHIC SIMILARITY	HIGH GRAPHIC SIMILARITY
188	0	2	29	43
	0.0	4.2	39.3	58.2
189	1	3	16	30
	2.0	10.0	32	60.0
190	3	4	42	32
	3.0	4.0	61.4	31.7
191	1	17	61	18
	6.8	16.5	59.2	17.5
192	1	8	56	39
	1.0	7.6	53.9	37.5
Mean	1.2	6.8	40.8	32.4
	2.4	8.5	49.2	40.9

PERCENT OF GRAPHIC PROXIMITY

GROUP 2A

SUBJECT	NO SIMILARITY	SLIGHT GRAPHIC SIMILARITY	MODERATE GRAPHIC SIMILARITY	HIGH GRAPHIC SIMILARITY
121	3	6	22	19
	5.9	11.8	43.2	39.3
122	5	5	39	19
	7.4	7.3	57.4	27.9
123	6	4	17	17
	13.6	9.1	38.6	38.6
134	4	4	15	14
	10.8	10.8	40.5	37.8
125	3	2	14	27
	6.5	4.4	30.4	58.7
Mean	4.2	4.2	21.4	19.2
	8.8	8.7	42.0	40.5

PERCENT OF GRAPHIC PROXIMITY

GROUP 6H

SUBJECT	NO SIMILARITY	SLIGHT GRAPHIC SIMILARITY	MODERATE GRAPHIC SIMILARITY	HIGH GRAPHIC SIMILARITY
601	0	3	2	5
	0.0	30.0	20.0	50.0
602	1	1	2	3
	14.3	14.3	28.6	42.9
603	2	0	2	2
	33.3	0.0	33.4	33.3
604	2	0	2	1
	40.0	0.0	40.0	20.0
605	3	5	6	6
	15.0	25.0	30.0	30.0
Mean	1.6	1.2	2.8	3.4
	20.5	13.9	30.4	35.4

PERCENT OF PHONEMIC PROXIMITY

GROUP 6L

subject	NO SIMILARITY	SLIGHT SOUND SIMILARITY	MODERATE SOUND SIMILARITY	HIGH SOUND SIMILARITY
188	1	3	29	41
	1.4	4.2	39.3	55.4
189	2	6	18	24
	4.0	12.0	36.0	48.0
190	6	7	56	32
	5.9	6.9	55.6	31.7
191	21	7	61	14
	20.4	6.8	59.2	13.6
192	9	6	54	35
	8.7	5. 8	51.9	33.6
Mean	7.8	5.8	43.6	29.2
	8.1	7.1	48.4	36.5

Table 4

•

PERCENT OF PHONEMIC PROXIMITY

GROUP 2A

SUBJECT	NO SIMILARITY	SLIGHT SOUND SIMILARITY	MODERATE SOUND SIMILARITY	HIGH SOUND SIMILARITY
121	4	6	22	19
	7.8	10.8	43.2	37.3
122	6	8	39	15
	8.8	11.8	57.4	22.1
123	7	4	19	14
	15.9	9.1	43.2	31.8
124	7	4	15	11
	18.9	10.8	40.5	29.7
125	7	1	13	25
	15.2	2.2	28.2	54.4
Mean	6.2	4.6	21.6	16.8
	13.32	8.94	42.5	35.06

Table 5

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PERCENT OF PHONEMIC PROXIMITY

GROUP 6H

SUBJECT	NO S IMILARITY	SLIGHT SOUND SIMILARITY	MODERATE SOUND SIMILARITY	HIGH SOUND SIMILARITY
601	2	2	1	5
	20.0	20.0	10.0	50.0
602	1	1	2	3
	14.3	14.3	28.6	42.9
603	2	0	2	2
	33.3	0.0	33.4	33.3
604	2	0	2	1
	40.0	0.0	40.0	20.0
605	6	2	6	6
	30.0	10.0	30.0	30.0
Mean	2.6	1.0	2.6	3.4
	27.5	8.9	28.4	29.3

e.g. A substitution of <u>she</u> for <u>the</u> differs graphically by only one letter but phonemically is 0.

It is possible, but not likely, that the reverse situation will occur

e.g. The substitution of $\underline{a} / \mathbf{a} / \mathbf{b}$ for the / \mathbf{b} /. Graphically this substitution is 0 but phonemically it is 8, differing in only one phoneme. Since these two words are closely related grammatically and very often interchangeable, the substitution is more likely a grammatical rather than a grapho-phonic one.

The following are the mean graphic scores for each subject on the figures from 0 to 9 (low similarity to high similarity):

6L		2A		6н	6н	
188	7.01	121	5.66	601	5.50	
189	6.82	122	5.29	602	5.83	
190	5.68	123	5.45	603	4.33	
191	4.51	124	5.27	604	3.80	
192	5.68	125	6.63	605	4.83	

Table 7

Bennie's substitution miscues show a graphic mean of 7.01 out of a possible score of 9. He is a member of the 6L group. By contrast, Nancy, in the 6H group, has a graphic mean of 3.8. Ranges and means for the three groups on graphic and phonemic similarity are shown in Figures 1 and 2.

These figures indicate that the group processing the grapho-phonic information most accurately is the 6L group. In other words, the least proficient readers are the readers most concerned with producing a highly similar response grapho-phonically.



Figure 2
Grapho-phonic proximity and comprehending:

Many reading clinicians would consider high grapho-phonic substitutions to be indicators of good reading but the subjects in the 6L group are not successful readers. They were classified by their teachers as low ability readers. Other evidence from the study must be investigated in order to determine the accuracy of the teachers' evaluations. A most interesting relationship can be seen by examining the "comprehending" scores for the three groups. The comprehending score will be discussed in detail in Ch. IV. However, it will be useful at this point in shedding some light on the seeming inconsistency in the grapho-phonic results.

The comprehending score is the percentage of miscues producing 1) semantically acceptable sentences, plus 2) semantically unacceptable sentences which were successfully corrected. The comprehending scores are shown in Figure 3.





Figure 3

In order to show the relationship between comprehending scores and graphic similarity, the graphic means have been converted to percentages and a line graph constructed including both comprehending and graphic means (Figure 4).

A pronounced inverse relationship is revealed. Why is this so? Proficient readers are concerned with meaning. They know that reading is a process of information acquisition. The miscues they make, therefore, tend to preserve meaning rather than to preserve high graphic similarity. Nancy, whose miscues were less than 50% graphically similar to the expected responses, made the following substitution:

crept Billy went closer.

The context of the discourse concerns Billy's discovery of a young fawn in the woods. Billy wishes to get close to it but does not want to frighten it away. Nancy's substitution is not only semantically acceptable but reveals her involvement with the drama of the story. It is actually an improvement over the word choice of the author who was undoubtedly constrained by the vocabulary control of the basal reader.

Another example from Nancy:

Poor little pet.

Nancy has again felt involvement in the story and has considered Billy's pet a friend, which again is entirely consistent with the story. Billy loves to sing but is afraid to sing in front of people. He sings to Lightfoot, his pet deer, who he knows will not laugh at him; perfect qualifications for a friend.



GRAPHIC MEANS vs COMPREHENDING MEANS

Figure 4

Non-words:

Because of the weaker readers' concern with grapho-phonic processing and their relative lack of awareness of the meaning which reading should provide, they produced a large number of non-words. The 6L group substituted 49 non-words, the 2A substituted 28 and the 6H group substituted 2. An examination of some of the non-words reveals a high degree of grapho-phonic proximity.

e.g. Stanley: Billy liked to take part in the work of the tribe.

The non-word <u>\$trib</u> is rated on both graphic and phonemic scales with a value of 8. It shows the omission of one letter graphically and the substitution of one vowel sound phonemically. This miscue indicates a well-developed ability to handle graphic information but results in a considerable loss of meaning.

The following are some other examples from the data:

Bennie: tribe - \$trib

cranberries - \$capelberries

carried - \$cward

drove - \$droove

songs - \$soongs

Stanley: cranberries - \$scarberries

rustle - \$rample

Graeme: cranberry - \$canberry

shyly - \$shinely

Deborah: tribe - \$trible

swamp - \$swam+p

fawn - \$frawn

These data indicate that:

1. All readers are handling the visual information effectively. Only 0% to 6.8% of the time did the subjects in the low group make miscues which had no similarity to the text. The 6H group, while obtaining a fairly low grapho-phonic similarity score on the miscues they made, made very few miscues, so obviously the graphic system is not a problem for them.

2. The lower the semantic acceptability score, the higher the grapho-phonic mean.

3. The weaker readers processed the visual information more accurately but were less effective in dealing with meaning. In Page's study (1970), readers confronted with successively more difficult material began reading with higher graphic and phonemic proximity. The present study supports Page's conclusions.

Phonics generalizations:

The grapho-phonic data indicate that phonics is not a problem for any of the readers and that the weak readers are particularly accurate in their grapho-phonic matching. Acquisition of these data led to an investigation of the utility of phonics generalizations presented in reading programs.

The forty-five generalizations collected by Clymer (1963) were examined.

Four widely used sets of readers were selected to determine the phonic generalizations being taught in the primary grades. After a preliminary study of the manuals, workbooks, and readers, the manuals were selected as the source of the generalizations....

Forty-five of the generalizations given in the manuals were selected for further study. The selection of these was somewhat arbitrary. The main criterion was to ask, "Is the generalization stated specifically enough

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so that it can be said to aid or hinder in the pronunciation of a particular word?" e.g. "When a vowel is in the middle of a one syllable word, the vowel is short," was included because we could judge by reference to a word list how often one syllable words with a vowel in the middle do in fact have a short vowel sound. (Clymer 1963)

Clymer tested the utility of the forty-five generalizations by checking them against a composite list of all the words introduced in the four basic series from which the generalizations were drawn. The present study checks the same forty-five generalizations against the words in *Billy Whitemoon*.

- Where there are two vowels side by side, the long sound of the first one is heard and second is usually silent.
- When a vowel is in the middle of a one-syllable word, the vowel is short.
- 3. If the only vowel letter is at the end of a word, the letter usually stands for a long sound.
- When there are two vowels, one of which is final <u>e</u>, the first vowel is long and the e is silent.
- The <u>r</u> gives the preceding vowel a sound that is neither long nor short.
- The first vowel is usually long and the second silent in the digraphs <u>ai</u>, <u>ea</u>, <u>oa</u>, and <u>ui</u>.
- In the phonogram <u>ie</u>, the <u>i</u> is silent and the <u>e</u> has a long sound.
- 8. Words having double e usually have the long e sound.
- 9. When words end with silent e, the preceding a or i is long.
- 10. In ay the y is silent and gives a its long sound.
- 11. When the letter \underline{i} is followed by the letters \underline{gh} , the \underline{i} usually stands for its long sound and the \underline{gh} is silent.

- 12. When <u>a</u> follows <u>w</u> in a word, it usually has the sound <u>a</u> as in <u>was</u>.
- 13. When <u>e</u> is followed by <u>w</u>, the vowel sound is the same as represented by <u>oo</u>.
- 14. The two letters ow make the long o sound.
- 15. W is sometimes a vowel and follows the vowel digraph rule.
- 16. When y is the final letter in a word, it usually has a vowel sound.
- 17. When y is used as a vowel in words, it sometimes has the sound of long <u>i</u>.
- 18. The letter <u>a</u> has the same sound (<u>o</u>) when followed by <u>1</u>, <u>w</u>, and <u>u</u>.
- 19. When <u>a</u> is followed by <u>r</u> and final <u>e</u>, we expect to hear the sound heard in <u>care</u>.
- 20. When c and h are next to each other, they make only one sound.
- 21. <u>Ch</u> is usually pronounced as it is in <u>kitchen</u>, <u>catch</u>, and <u>chair</u>, not like <u>sh</u>.
- 22. When \underline{c} is followed by \underline{e} or \underline{i} , the sound of \underline{s} is likely to be heard.
- 23. When the letter <u>c</u> is followed by <u>o</u> or <u>a</u> the sound of <u>k</u> is likely to be heard.
- 24. The letter <u>g</u> often has a sound similar to that of <u>j</u> in <u>jump</u> when it precedes the letter <u>i</u> or <u>e</u>.
- 25. When ght is seen in a word, gh is silent.
- 26. When a word begins with wr, the w is silent.
- 27. When a word begins with \underline{kn} , the \underline{k} is silent.
- 28. When two of the same consonants are side by side only one is heard.

- 29. When a word ends in <u>ck</u>, it has the same last sound as in <u>look</u>.
- 30. In most two-syllable words, the first syllable is accented.
- 31. If <u>a</u>, <u>in</u>, <u>re</u>, <u>de</u>, or <u>be</u> is the first syllable in a word, it is usually unaccented.
- 32. In most two-syllable words that end in a consonant followed by \underline{y} , the first syllable is accented and the last is unaccented.
- 33. One vowel letter in an unaccented syllable has its short, sound.
- 34. When y or ey is seen in the last syllable that is not accented, the long sound of e is heard.
- 35. When ture is the final syllable in a word, it is unaccented.
- 36. When tion is the final syllable in a word, it is unaccented.
- 37. In many two- and three-syllable words, the final <u>e</u> lengthens the vowel in the last syllable.
- 38. If the first vowel sound in a word is followed by two consonants, the first syllable usually ends with the first of the two consonants.
- 39. If the first vowel sound in a word is followed by a single consonant, that consonant usually begins the second syllable.
- 40. If the last syllable of a word ends in <u>le</u>, the consonant preceding the <u>le</u> usually begins the last syllable.
- 41. When the first vowel element in a word is followed by <u>th</u>, <u>ch</u>, or <u>sh</u>, these symbols are not broken when the word is divided into syllables and may go with either the first or second syllable.

- 42. In a word of more than one syllable, the letter y usually goes with the preceding vowel to form a syllable.
- 43. When a word has only one vowel letter, the vowel is likely to be short.
- 44. When there is one <u>e</u> in a word that ends in a consonant, the<u>e</u> usually has a short sound.

45. When the last syllable is the sound r, it is unaccented.

The words in the text which did not conform to any of the given generalizations were counted and the percentage of these outlaws was calculated. Forty-five percent of the words in *Billy Whitemoon* do not conform to the given generalizations.

A few generalizations are particularly unsound and are examined in detail.

Generalization 5 reads: The 'r' gives the preceding vowel a sound that is neither long nor short. If rule 5 is examined linguistically, we discover words such as <u>deer</u> pronounced /dIr/ without the glide which normally accompanies /i/. Long vowels in traditional reading terms are those which consist of vowel plus glide in phonetic observations; e.g. $\bar{a} = /ey/; \bar{e} = /iy/; \bar{1} = /ay/; \bar{o} = /ow/; \bar{u} = /uw/$. The short equivalents of the above long sounds in reading terms are: $a - a /ae/; e - e /\mathcal{E}/;$ i - i /I/; o - o /a/; u - u /P/. All of the above 'short' sounds appear in the pronunciation of words with r following vowels. Following is a list of words containing post vocalic r.

a 1. start/start/ 2. toward/tawsrd/or//tord/ 3. carried part/part/ warm/worm/ /kærid/ car/kar/

1. deer /dIr/ ee 1. their $\delta \epsilon r/\delta$ ei 2. heard /hərd/ 1. year /yIr/ ea near /nIr/ fear /fIr/ earrings /IrInz/ 1. her /har/ 2. very /vgri/ 3. there $/8\epsilon r/$ е cranberry /kraenberi/ 4. were /war/ 5. here /hIr/ 2. surely /šərli/ 1. picture /pIkčar/ u returned /ritarnd/ surprised /sərprayzd/ 1. campfire /kaempfayr/ 1 1. stories /storiz/ 2. world /warld/ 3. tomorrow 0 forest /forast, farast/ work /wark/ /tamaro/ for /for/ orange /> ran //

If one uses a phonics oriented interpretation, <u>deer</u> is said to have a long \underline{e} . This contradicts rule five. Even within the traditional reading view we find discrepancies such as <u>were</u>, <u>there</u>. These are not pronounced like <u>here</u> nor like each other.

Vowels preceding <u>r</u> in unstressed position were schwa consistently and were considered regular although no explicit generalization was given; e.g. <u>gathered</u>, <u>colored</u>, <u>closer</u>, <u>father</u>, <u>mother</u>, <u>summer</u>, <u>travelers</u>, <u>bigger</u>, <u>winter</u>, <u>river</u>, <u>every</u>, <u>hunters</u>, <u>afternoon</u>, <u>shoulder</u>, <u>longer</u>, <u>wonderful</u>. All other words containing post-vocalic <u>r</u> were considered outlaws as the generalization dealing with their pronunciation is inaccurate and completely non-predictive.

The forty-five generalizations ignore morphology. For this reason it was necessary to consider words such as <u>broken</u> as contradicting generalization 33 which reads: one vowel letter in an accented syllable has its short sound. Other examples - making, skating.

There were many words which it was necessary to classify as exceptions to the pronunciation generalizations as no generalization whatsoever was given to account for their pronunciation. The fortyfive generalizations do not provide for the pronunciation of \underline{oo} . Obviously some phonics programs do attempt to predict the phonetic realization of \underline{oo} but Clymer's forty-five generalizations are the basis of this study, therefore it was decided not to go outside the given generalizations. Words in the story containing the letter sequence \underline{oo} have two different pronunciations almost equivalently so it would be impossible to form a generalization with predictive powers on the basis of this piece of text. We find: <u>Whitemoon, Lightfoot</u>, food, good, root, shoot, school, woods, took, look, etc.

There were no generalizations given regarding the placing of stress in words of more than two syllables so examples such as <u>Winnebago</u> could not be considered predictable. The voicing or non-voicing of <u>s</u> in word-final position was not accounted for. In English we have words such as <u>bus</u>, <u>us</u>, <u>Gus</u>, <u>this</u>, with voiceless /s/, also <u>was</u>, <u>his</u> with voiced /z/. Therefore, <u>was</u>, <u>his</u> were classified in the NG (no generalization applicable) category.

The generalizations involving syllables were both inconsistent and unenlightening as far as predicting pronunciation is concerned; e.g. 38. If the first vowel sound in a word is followed by two consonants, the first syllable usually ends with the first of the two consonants. 39. If the first vowel sound in a word is followed by a single consonant, that consonant usually begins the second syllable.

It seems incredible that young children would be expected to understand and remember such abstract generalizations. In the event the

children did learn such rules there is no prediction of pronunciation involved in stating how a word may be divided into syllables.

The obvious conclusion to be drawn from a study of phonics and syllable generalizations is that one must be able to pronounce the word before determining which generalization applies. One page of *Billy Whitemoon* contains the words, <u>move</u>, <u>love</u>, <u>drove</u>. After pronouncing each of these three words one is able to state that the word <u>drove</u> follows #4. When there are two vowels, one of which is final <u>e</u>, the <u>first vowel is long and the <u>e</u> is silent</u>. However, if the reader were to depend on rule #4, he would be wrong 67% of the time with just these three words.

The same is true of stress placement in English. Consider the following words: <u>inaccurate</u>, <u>inconceivable</u>, <u>infancy</u>. After a lesson on prefixes, a student pronounced the last word <u>infancy</u> and defined it as 'not fancy' even though the word <u>infancy</u> was part of his vocabulary.

To examine the relationship between generalization-governed and deviant words in the text and reading behavior, the miscues of two readers from each of the study groups (6L, 2A, 6H) have been classified. Groups were organized containing rule governed words and non-rule governed words. Table 8 will illustrate the relationship of miscues to generalization-governed words.

The column labelled <u>Total</u> gives the total number of substitution miscues made by each subject. <u>Rule</u> gives the percentage of the miscues made by the subject that were made on words which were consistent with the generalizations given. <u>Non-rule</u> indicates the percentage of miscues made on words which did not conform to the generalizations. Bennie, therefore, made a total of 75 word-level substitution miscues. Seventy percent of these miscues were on words which were predictable from the

	Total	Rule	Non-Rule
Bennie	75	70%	30%
Stanley	104	60%	40%
Deborah	44	63%	37%
Graeme	51	52%	48%
Kathy	10	100%	0%
Nancy	7	67%	33%
	Tab	le 8	

generalizations and 30% of Bennie's miscues were on non-conforming words. If Bennie's problem in reading was with words which do not follow the rules he has been taught, it would be expected that he would have more than 45% of his miscues on words which do not follow the generalizations. Interestingly, however, Bennie makes more miscues on the regular words. One might conjecture, perhaps, that this is an indication that Billy needs to learn the rules, but this would cause him to miscue 45% of the time because only 55% of the words in *Billy Whitemoon* follow the generalizations given. If Bennie were completely devout in his conformity to the rules, he would miscue on 45% of the text, or 495 words. Bennie would have made 495 substitution miscues instead of 75 if he were true to the forty-five generalizations.

There seems to be no relationship between the reading proficiency of the students and their rule or non-rule oriented miscues. The range of miscues in the non-rule words for the 6L group is from 30% to 40% while the range in the 2A group is from 37% to 48%. This appears to be a trend toward better performance on the rule-governed words but the highly proficient group invalidates that trend. One hundred percent of Kathy's substitution miscues were made on

rule-governed words. The number of miscues in this group is so small that the statistics are not very meaningful but it does indicate that the more proficient readers are not operating on the phonics generalizations more proficiently. Nancy (6H) looks more like Bennie (6L) than anyone else.

It is obvious that the spelling regularity or irregularity has no relationship to the miscueing behavior of the subjects in the study. What, then, does cause students to miscue?

The first ten miscues made by Bennie, Deborah, and Kathy are described below with suggested causes.

Bennie:

<u>Winnebago</u> - was omitted. This word appears on the list of words for which no generalization was given. There is no generalization to predict stress. Other than that, quite a regular graphic-sound relationship exists. Bennie probably skipped it because it was a long word and because it was not a word for which he had a concept. It was not in his oral vocabulary. Most of the readers had problems with this word.

<u>Cabin</u> - is an easy word to read. Bennie substituted <u>camp</u>. The text read, <u>Billy lived with his father and mother in a cabin near the river</u>. Very likely Bennie's concept of Indians has them living in teepees not cabins. Perhaps, also, he thinks of camping near the river. It is obvious that Bennie is processing meaning here and has translated his output into something more in keeping with his conceptual experience. <u>Liked</u> - Bennie substituted <u>lick</u> for <u>liked</u>. This shows some probable secondary dialect involvement as Bennie's realization of <u>licked</u> would be lick in most cases. There is not enough context to help Bennie

choose between <u>liked</u> and <u>licked</u>. He does retain the identical grammatical function. In subsequent occurrences Bennie reads <u>liked</u> correctly. The context allows him to succeed. In the next line, <u>One of the things Billy liked most...</u>, the word <u>liked</u> is highly predictable and is read correctly.

<u>Tribe</u> - <u>All the men and women and children of the tribe went to the</u> <u>cranberry swamp</u> The word <u>tribe</u> is obviously not in Bennie's vocabulary. It occurs several times in the story and Bennie never is able to read it. He omits the first occurrence, next he tries <u>\$trib</u> which is very close grapho-phonically, next he tries <u>\$trawbel</u>. Obviously his problem is experiential and his apparent attempts at following phonics rules do not bridge the gap.

<u>Cranberry</u> - This word was placed on the non-rule governed list because of the post-vocalic \underline{r} . However, Bennie read the <u>berry</u> morpheme with ease. Nearly all the inner-city black children miscued on <u>cranberry</u>. Obviously it is not a word in their active vocabularies. Cranberries are rather a white American custom.

<u>Picking</u> - Because of the problem with <u>cranberry</u>, Bennie omitted the next word <u>picking</u>. The activity of cranberry picking meant nothing to him. Two lines later, the word <u>picking</u> occurs again and Bennie reads it successfully.

Tribe - see tribe above.

<u>Cranberries</u> - This time Bennie tries <u>cackleberries</u>. He is still not correct but the word probably sounds more familiar to him. There *is* a breakfast cereal called <u>cackleberries</u> and a joking reference to eggs as cackleberries is often made. <u>Swamp</u> - Another word outside the conceptual experience of the pavementoriented inner-city child. Bennie omitted it. It should be easy to read.

<u>City</u> - Bennie substituted <u>country</u>, a very interesting miscue. <u>City</u> follows the phonics generalizations while country does not. Country is a longer word and as such may appear to be more difficult. The semantic features on both words are identical except for one feature $\langle -$ urban \rangle perhaps. Point of view is obviously operating here. Bennie lives in the city. The story has the cackleberries (cereal from a factory?) put into boxes and sent to the city. Since Bennie is in the city and they are being sent not brought, Bennie sends them to the country. A word attack problem? Obviously again, a conceptual problem.

Deborah - 2A

<u>Winnebago</u> - Deborah substitutes <u>\$Winebuggie</u>. It is obvious she is working quite efficiently with graphic cues. Her problem, like Bennie's, is that <u>Winnebago</u> is not in her vocabulary.

<u>His</u> - Deborah omitted the word <u>his</u> in this case. Obviously a high average reader like Deborah is not having trouble with an easy word like <u>his</u>. She reads it correctly every other time it appears in the text. She is anticipating the following word <u>tribe</u> which she does not know. Anticipation sometimes causes regression in order to 'take a run at it.' Sometimes it causes additional words to be missed as happened in this case.

<u>Tribe</u> - Deborah's attempt was <u>\$trible</u>. Like Bennie, Deborah is unfamiliar with Indians and tribes.

<u>Cranberry</u> - Deborah substituted the non-word <u>\$caraberry</u>. She is another of the inner-city children who have not had experience with cranberries.

<u>Tribe</u> - This time she comes slightly closer grapho-phonically with the non-word <u>\$trib</u> but she is still not processing meaning. Deborah never does read tribe.

Swamp - Again a conceptual experiential problem as Deborah does an excellent job of handling graphic cues. She produces swam + p. Ripe - Deborah should be able to read this word. It is likely in her vocabulary. However, here again, it is like his. She miscues on ripe because it comes before cranberries which she produces as \$canberries this time. If she were orally familiar with the word cranberries, and arrived at as close a pronunciation as \$canberries she would have recognized the word and produced it correctly. Sent - Deborah substituted set. The text read ... which they put in boxes and sent to the city. Deborah was likely predicting something like ... and set on the table. As soon as she encountered the next word, to, she realized she had misread and corrected set to sent. The - Deborah substituted he. Again one would suspect a good reader such as Deborah to know the difference between the and he and she does. This is the only time that this particular substitution occurs. Discourse analysis is required to find the cause for this miscue. The previous sentence begins, When he wasn't in school The sentence in question continues but (indicating a compound sentence often containing parallel constructions) when the heavy snows.... Deborah was predicting a similar pattern.

<u>Heavy</u> - This word is involved with the previous miscue in a complex miscue. After producing <u>But when he</u> it was impossible to use <u>heavy</u>. <u>But when he heavy</u> would offend Deborah's excellent grammatical sense. So while the first miscue, <u>he</u> for <u>the</u>, was caused by a faulty prediction built on a structural sense, the second <u>having</u> for <u>heavy</u> arises from a need to maintain a possible grammatical sequence. Neither of these miscues would be eliminated by drill in phonics.

Kathy

<u>In</u> - Kathy substituted <u>is</u> due to a prediction that a small word following <u>there</u> and beginning with <u>i</u> is likely to be <u>is</u>. Actually the probability of her guess being correct is very high. As soon as Kathy saw the following phrase she corrected. <u>There in the dead damp leaves...</u> <u>Went</u> - Here Kathy is using her creativity and dramatic sense to supplement her semantic and grammatical strengths. The story concerns the finding of a fawn by a young Indian boy. The text read, <u>Billy went</u> <u>closer</u> (to the fawn). Kathy transformed it to the more colorful <u>Billy</u> <u>crept closer</u>. Absolutely no similarity grapho-phonically, yet semantically and grammatically an excellent substitution.

<u>That</u> - <u>He was surprised that the little fawn didn't run away</u> becomes <u>He was surprised when the little fawn didn't run away</u>. Again a perfectly acceptable structure semantically and grammatically with no graphophonic similarity. Kathy could not be said to be having trouble processing graphic information.

<u>Then</u> - Kathy substitutes <u>when</u>. This is a very natural thing to do as both words are clause markers and thus fill the same grammatical function. They look and sound alike differing in only one phoneme and one grapheme and have some semantic similarity both referring to time.

<u>This</u> - <u>Then he noticed that this one's leg...</u> becomes <u>Then he noticed</u> <u>that his</u>, correction. Kathy predicts a likely word <u>his</u> but corrects when she sees the following word. <u>His one's</u> is not grammatically acceptable.

Then - Again Kathy substitutes when. As then introduced an independent clause and when is a dependent clause marker, Kathy put two sentences together to create one which was grammatically acceptable. Then Billy and his father built a summer house. They covered it with deer hides... became When Billy and his father built a summer house they covered it with deer hides.... Her miscue was semantically acceptable and she made it grammatically acceptable by using a conjoining transformation. Would - The original sentence, Lightfoot was so much bigger now that the hunters would surely shoot him became Lightfoot was so much bigger now that the hunters could surely shoot him. Again semantically and grammatically acceptable. Kathy is a highly proficient reader making the same types of miscues that adults do.

<u>Knew</u> - Kathy substituted <u>looked</u>. A proficient reader such as Kathy, in not having difficulty distinguishing between these two words and a phonics program is not indicated. The text was <u>Billy knew how he</u> <u>could...</u> and Kathy read <u>Billy looked</u> then corrected. The context led her to expect <u>looked</u> conceptually. It fit grammatically but the next word <u>how</u> broke English co-occurrence restrictions and forced Kathy to correct.

<u>What</u> - The original sentence was: <u>Billy was so pleased by the hunter's</u> words that he told his father and mother what had happened. Kathy read: <u>Billy was so pleased by the hunter's words that he told his father and</u> mother that he and then corrected. Again she is predicting, an important

part of the reading process. When her prediction is tested and fails, she regresses and corrects.

The above examples indicate two main causes of miscue behavior, neither of which is phonics failure.

1. Students miscue on words for which they have no concept, e.g., <u>cranberry</u>, <u>swamp</u>. The word <u>rustling</u> occurs three times in *Billy Whitemoon*. The children familiar with the word orally had no trouble producing it from the written text. Those who were unfamiliar with it either skipped it or resorted to phonics. Those who 'sounded-out' tried <u>rusting</u>, <u>rusty</u>, <u>resting</u>. They did not have any information about the silent 't'. One line was particularly interesting: <u>Billy</u> <u>feasted on roast corn and baked fish</u>. Each word follows regular spelling to sound rules, yet nearly every one of the average and weak readers had problems with that sentence. Roast corn and baked fish are obviously outside their experience, also the concept of feasting.

Peter Rausch (1972) has done a study where he pre-tested students on the concepts contained in a particular story before they read it. He divided them into two groups, the high and low concept groups. He discovered that the high concept group did significantly better in terms of semantically acceptable miscues than the low concept group. These students were controlled for I.Q. and had varied standardized reading test scores. He found that their knowledge of the concepts was more predictive of their success in reading performance than were their test scores. In other words, a student with

a high concept rating but a low standardized test score performed better than a reader with the opposite characteristics.

2. Students miscue when they predict unsuccessfully. All readers make predictions. These predictions are tested and either confirmed or rejected. A good reader will correct a faulty prediction. (See Chapter V.)

The phonics generalizations are inconsistent and non-predictive. Students' miscueing behavior is not determined by knowledge or lack of knowledge of the generalizations. All readers in the present study are arriving at high grapho-phonic proximity probably on the basis of generalizations developed themselves on the basis of their experience with reading.

CHAPTER III: THE SYNTACTIC SYSTEM

Introduction:

Old insights about reading based on an over-emphasis on words must be carefully reconsidered as the view of words is placed in proper perspective.

At the same time, new concerns are emerging whose significance was previously overlooked or only dimly seen. Grammar, as the system of language, emerges as one such colossal oversight. Whenever any language user attempts to derive meaning from language he must treat it as grammatical sequences, and be aware of grammatical interdependencies. This is true when a reader deals with a simple sequence like Tom saw Betty. He must know that Tom is subject and Betty is object in order to comprehend. In a much more complex sequence, such as See Flip run, he must be aware that the subject you is not present in the surface structure; that Flip run is an embedding of an underlying structure, you see (Flip runs), and that the clause functions as the object of the verb see. If he cannot process this information, he will not comprehend the message See Flip run. Both examples are three word sentences. The task of reading each sentence depends largely on the processing of grammatical information. Thus, when viewed from a psycholinguistic base, what has appeared to be a word recognition problem is a very different phenomenon. (Goodman, K. 1972:144)

The beginning reader has already mastered the syntax of spoken language. Even though teachers often feel that they teach language there is very little a teacher can do to change the grammatical system a child has developed by the age of five or six. The task of the reading teacher is to help the student to use his grammatical competence in reading since written language makes use of the same grammatical rules as spoken language. There are some stylistic differences, of course, but these are largely surface level options. The syntactic information possessed by all users of language consists of:

A. Sentence Patterns: The grammatical sequences and interrelationships of language. The <u>s</u> ed the <u>s</u>, is an example of a sentence pattern common in English.

B. Pattern Markers: The markers which outline the patterns.
1. Function Words: Those very frequent words which, though themselves relatively without definable meaning, signal the grammatical function of the other elements.
Examples; <u>the</u>, <u>was</u>, <u>not</u>, <u>do</u>, <u>in</u>, <u>very</u>, <u>why</u>, <u>but</u>.

2. Inflections: Those bound morphemes (affixes) which convey basically grammatical information. Examples; ing, ed, s.

3. Punctuation - Intonation: The system of markings and space distribution and the related intonation patterns. Pitch and stress variations and variable pauses in speech are represented to some extent by punctuation in writing.

C. Transformational Rules: These are not characteristic of the graphic input itself, but are supplied by the reader in response to what he perceives as its surface structure. They carry him to the deep structure and meaning. If he is to recognize and derive meaning from a graphic pattern, he must bring these grammatical rules into the process. (Goodman and Niles 1970:15)

Syntactic acceptability:

The present study investigates the degree of success of the various

subjects in dealing with the grammatical structure of Billy Whitemoon.

Table 9 shows the degree to which each subject's miscues disrupted

the syntax of the text.

There are five categories:

0 - Unacceptable - Miscues have resulted in a sentence totally unacceptable grammatically.

e.g. Bennie: When he wasn't in school, he (skated) with his friends on the river ice .

The omission of the verb results in a completely unacceptable structure.

SYNTACTIC ACCEPTABILITY

GROUPS	SUBJECT	UNACCEPTABLE	ACCEPTABLE WITH PRIOR	ACCEPTABLE WITH AFTER	ACCEPTABLE IN SENTENCE	ACCEPTABLE IN PASSAGE
	188	31.2	19.4	8.6	0.0	40.9
	189	26.9	17.3	1.9	0.0	53.8
<i>(</i> ,	190	24.2	30.0	10.8	0.0	35.0
6L	191	33.0	26.1	13.9	0.0	27.0
	192	22.1	26.5	6.2	0.0	45.1
	MEAN	27.48	23.86	8.28	0.0	40.38
	121	25.5	25.5	7.3	0.0	41.8
	122	12.0	24.0	16.0	0.0	48.0
2A	123	14.3	22.4	10.2	2.0	51.0
	124	10.2	22.4	6.1	0.0	61.2
	125	0.0	6.2	6.2	4.2	83.3
	MEAN	12.4	20.1	9.18	1.24	57.06
	601	0.0	29 4	0.0	0.0	70.6
4 U	602	5.9	5.9	0.0	0.0	88.2
оп	603	5.9	11.8	0.0	0.0	82.4
	604	0.0	10.0	0.0	0.0	90.0
	605	5.9	14.7	0.0	0.0	79.4
	MEAN	3.54	14.36	0.0	0.0	82.12

Table 9

1 - Acceptable with prior - The miscue is acceptable with only the portion of the sentence preceding it.

e.g. Deborah: Billy hurried to his cabin.

2 - Acceptable with the portion of the sentence following the miscue.

Tommy e.g. Both of us together can open the door.

- 3 The miscue is acceptable within the sentence but not in the story. This happens very rarely in the case of syntax but the category is necessary for semantic acceptability (see Ch. V). The only possibility syntactically is a tense change. If the discourse is in one tense and the miscue results in a grammatically acceptable sentence in a different tense, this would be an example of 3.
- 4 The miscue results in a totally acceptable sentence syntactically.

e.g. Deborah: They drove until they found a good place to camp for the summer.

Table 9 indicates that 0% of Kathy's (601) miscues resulted in sentences which were completely unacceptable syntactically while 70.6% were totally acceptable. On the other hand, 31% of Bennie's (188) miscues resulted in completely unacceptable structures opposed to 40% totally acceptable. Figure 5 shows the distribution of miscues among the five categories of syntactic acceptability.

For the two groups of proficient readers, the highest percentage of miscues are syntactically acceptable. The second largest percent (Figure 5) is the acceptable with prior category. The weaker readers also have their highest percentage of miscues in the completely acceptable range but they differ in that the second most frequent SYNTACTIC ACCEPTABILITY



miscue type consists of those that result in completely unacceptable structures.

The students who make large numbers of acceptable with prior miscues are predicting on the basis of syntactic structure. The weaker readers have not developed this strength as successfully. Their miscues result in as many unacceptable structures as those in which the miscue is acceptable with prior.

An investigation of the handling of syntax (unlike that of the grapho-phonic system) reveals a sharp differentiation between groups. The following line graph (Figure 6) illustrates this difference. Reading across from L to H the percentage of totally acceptable syntax rises from a mean of 40.4% to 82.12%. Conversely, the percentage of totally unacceptable syntax drops from 27.5% to 3.5%.

Clearly, one area in which poor readers need help is in the awareness that reading should sound like language.

Syntactic change:

When a miscue has been judged syntactically acceptable, the structure is examined to determine how much change has taken place. It is possible to substitute a sentence which is completely acceptable but which is quite divergent from the original structure.

The Taxonomy contains nine sub-categories, eight of which are represented in the data (Tables 10, 11 and 12). The degree of change decreases through the sub-categories from 0 to 9. For ease of interpretation the sub-categories have been coalesced into three columns (Figure 7): change in sentence, change in phrase, and slight or no syntactic change.



Figure 6

				SYNTACTIC CI	IANGE, GROUP	6L		
54 🖛 SABIECL	IN COWWON SINGLE ELEMENT	MAJOR SENTENCE CHANGE	CHANGE MINOR SENTENCE	MAJOR PHRASE CHANGE	MINOR PHRASE CHANGE	PERSON, TENSE NUMBER CHANCE	FUNCTION WORD	DNCHANGED
188	0	0	1	6	2	1	0	28
	0.0	0.0	2.6	15.8	5.3	2.6	0.0	73.7
189	Ð	0	2	4	Т	2	0	19
	0.0	0.0	7.1	14.3	3.6	7.1	0.0	67.9
190	Н	0	2	2	4	0	2	31
	2.4	0.0	4.8	4.8	9.5	0.0	4.8	73.8
191	0	0	0	Q	٣	2	4	16
	0.0	0.0	0.0	19.4	9.7	6.5	12.9	51.6
192	0	1	2	۳	6	1	7	33
	0.0	2.0	3.9	5.9	17.6	2.0	3.9	64.7
MEAN Z	0.5	0.4	3.7	12.0	9.1	3.6	4.3	66.3
				Tal	ole 10			

.

				SYNTACTIC C	HANGE, GROUP	2 A		
≫ ≉ SAB1ECL	IN CONNON SINGLE ELENENT	MAJOR SENTENCE MAJOR SENTENCE	MINOR SENTENCE CHANGE	MAJOR PHRASE CHANGE	MINOR PHRASE	NUMBER CHANCE DERSON, TENSE	FUNCTION WORD	UNCHANGED
121	0	1	0	e	4	1	2	11
	0.0	4.5	0.0	13.6	18.2	4.5	9.1	50.0
122	0	l	0	e	S	ũ	e	21
	0.0	2.8	0.0	8.3	13.9	8.3	8.3	58.3
123	0	0	0	1	7	2	6	10
	0.0	0.0	0.0	3.8	26.9	7.7	23.1	38.5
124	0	0	0	7	ę	£	12	10
	0.0	0.0	0.0	6.7	10.0	10.0	40.0	33.3
125	0	0	0	4	1	£	£	31
	0.0	0.0	0.0	9.5	2.4	7.1	7.1	73.8
MEAN X	0.0	1.5	0.0	8.4	12.8	7.5	17.5	50.7
				Ta	ble 11			

				SYNTACTIC CI	HANGE, GROUP	6H		
≫ ↔ SABJECL	IN COMMON SINCLE ELEMENT	MAJOR SENTENCE CHANGE	MINOR SENTENCE CHANGE	MAJOR PHRASE CHANGE	MINOR PHRASE CHANGE	PERSON, TENSE NUMBER CHANGE	EUNCTION WORD	DNCHVNCED
601	0	1	0	4	3	1	0	e
	0.0	8.3	0.0	33.3	25.0	8.3	0.0	25.0
602	0	2	0	S	m	1	1	e
	0.0	13.3	0.0	33.3	20.0	6.7	6.7	20.0
603	0	0	1	1	9	0	e	e
	0.0	0.0	7.1	7.1	42.9	0.0	21.4	21.4
604	0	0	0	Т	4	0	0	4
	0.0	0.0	0.0	11.1	44.4	0.0	0.0	44.4
605	0	1	0	1	10	S	2	œ
	0.0	3.7	0.0	3.7	37.0	18.5	7.4	29.6
MEAN X	0.0	5.1	1.4	17.7	33.9	6.7	7.1	28.1
				Tal	ble 12			



Figure 7

Very few miscues fell in the major change sub-category. The syntactic change category is coded only for totally acceptable structures, very few miscues change the sentence pattern significantly and retain total acceptability. The H group did this to a greater extent than the others, showing their ability to manipulate structure while maintaining acceptable syntax. In the phrase level category, the H group again made a higher percentage of change than the other two groups. For 2A and 6L, approximately 75% of their syntactically acceptable miscues resulted in very little syntactic change. The types of miscues included in this class are those involving change in function word, or person, tense or number changes, as well as those which cause no syntactic change. When the weaker readers made miscues which were syntactically acceptable, they tended to maintain syntax very close to the original. Conversely, the H group were more free with the syntax while maintaining acceptability.

Transformations:

In order to deal with the transformation category, it would perhaps be useful to re-examine the model given in the introduction (page 4).



The author proceeds from meaning to generate a deep structure, then by means of transformations he derives a surface structure which manifests itself in a graphic display. The reader infers the transformational rules used by the author and arrives at an inferred deep structure from which he extracts meaning. From this point the reader generates his own deep structure and through transformational rules derives a surface structure which is speech. The silent reading model would stop at the point where the resser obtains meaning. The re-encoding into speech is a phenomenon necessary to oral reading only.

Since, according to psycholinguistic reading theory, the reader infers the transformational rules and deep structure of the author, there is possibility of a mismatch between rules and derivations. Any proficient adult reader who has had experience reading aloud to children is probably aware of the structural changes he makes, at the same time preserving meaning. Some of these changes are due to inaccurate inference of the author's rules, some to the use of optional transformations to arrive at a surface structure more like the language of the
reader; or in the case of reading to young children, an attempt to restructure into a language more familiar to the child.

The present study investigates the transformational changes made by the subjects as they read *Billy Whitemoon*.

The Goodman Taxonomy of Reading Miscues provides five possibilities under the transformation category, which involve a somewhat different interpretation of deep-structure from that of traditional transformational theory. The reading Model (p. 55) indicates a separation of meaning from deep-structure.

In speaking or in writing, meaning in the mind of the originator creates a deep language structure (a set of base forms) and activates a set of rules which transform that structure and generate a signal, either graphic or oral. (Goodman and Niles 1970:11)

Goodman does not consider that deep-structure and meaning coincide, but rather, that "meaning creates a deep language structure."

A reader works with already generated and transformed grammatical structures. His miscues reflect his anticipation of the deep structure, surface structure and meaning with which he is dealing. It is possible for a miscue to cause a change in either or both. Syntactic changes which the reader institutes can occur at either the deep or surface structure level. (Goodman, K. 1970:T 27)

Standard transformational theory is a competence model while the Goodman Taxonomy, in dealing with actual data, has adapted that competence model in order to develop a viable performance model.

Chafe's (1970) language model more closely represents the one used by Goodman than does the standard transformational model.

Concepts, however, are not arranged like letters along a single linear dimension. As a very simple example, the concepts <u>cat</u> and <u>plural</u> when they are combined to form <u>cats</u> are not in any apparent linear relation. There is no apparent justification for saying that <u>cat</u> precedes <u>plural</u> along some conceptual dimension, or that <u>plural</u> precedes <u>cat</u>. We might represent this absence of sequential ordering by placing <u>cat</u> and <u>plural</u> in vertical rather than horizontal relation to each other on the page:

cat plural

If, now, the conventions of symbolization in English yield the following:

cat \longrightarrow kaet plural \longrightarrow s

we have no way of knowing, based on the nonsequential arrangement of the concepts, how the symbols kaet and s are to be sequentially ordered. The concepts, it would seem, must undergo some process of *linearization* before symbolization can take place. The simultaneous arrangement of <u>cat</u> and <u>plural</u> must be transformed into a linear arrangement first:

cat ____ cat plural

The necessity for such processes along the path from meaning to sound follows naturally from the recognition that conceptual units in language combine into larger configurations, that such configurations are not linear, and that sound symbols *are* linear because of the unavoidable linearity of sound. (Chafe 1970:28)

The five transformation categories are:

0 - A grammatical transformation is not involved. The syntactic

structure of the sentence is unchanged.

picked e.g. Thurman (189): They packed Mother Whitemoon's baskets

carefully.

Although the meaning is different, the syntactic structure remains identical.

1 - A transformation occurs which involves a difference in deep structure between the ER and the OR. In some instances, both the syntax and the meaning are changed. [Because this subcategory is somewhat complex, the definitions and examples are taken directly from the manual (Goodman 1970:T29).]

- (a) Differences in tense or number.
 - ER As they approached the tent, the thin wail of coyotes reached her ears from upstream.
 - OR As they approached the tent, the thin wail of coyotes reached their ears from upstream.
 - ER He saw the spring flowers. Determiner substitutions do not usually OR He saw a spring flower. involve a transformation, but in this case, the determiner substitution causes a move from plural to singular.
- (b) Sex distinctions in pronouns.

ER he OR she

(c) Omissions or insertions of a grammatical function.

ER All of them were living in Switzerland.

- OR All of them were living in about Switzerland.
- ER His father usually called him Tinker.

OR His father called him Tinker.

In some instances, the syntax changes while the meaning is retained.

- ER On nights when the fires were burning, she often heard coyotes singing <u>a protest</u> from distant ridges.
- OR On nights when the fires were burning, she often heard coyotes singing to protest from distant ridges.
- 2 The reader actually anticipates the same deep structure as the author, but uses a *different* set of transformational rules to generate the surface structure in his oral reading. This category exists to handle dialect differences which are the

result of a different set of transformational rules than those available in the standard dialect.

e.g. Leroy: She pounded the young trees into long strings. The deep structure of both sentences consists of the pronoun she plus the past tense of the verb pound plus a direct object. Leroy uses a different transformational rule to derive past tense. As a speaker of Black English the realization of the past tense for Leroy contains a zero inflection. In the bound morpheme category (see p. 78) such a miscue is coded as a substitution of one inflection (\emptyset) for another, (/ad/).

3 - The reader anticipates the same deep structure as the author, but selects an alternate surface structure which is available through the use of optional transformations.

e.g. Nancy: Billy was very happy. He knew that spring had come.

The deep structure contains <u>that</u> but an optional transformation in standard English provides for the deletion of <u>that</u> between two complete sentences.

4 - The fourth category is reserved for miscues in which the structure is so badly garbled it is impossible to ascertain the transformational process because the deep structure is lost to the researcher.

e.g. Stanley: Billy knew how he could prove Lightfoot was his. \longrightarrow But know how he Lightfoot was his.

The transformation miscues of one reader from each group will be examined to see if any differences may be seen. 6L Bennie (188): Bennie made a total of 77 miscues which involved re-transformation of the original deep structure. Twenty-three of his transformation miscues resulted in different deep structures.

e.g. There in the dry, (dead) leaves he saw a little fawn.

The omission of <u>dead</u> changes the deep structure as the adjective represents an underlying clause which is deleted.

An even larger number (31) of miscues were ones in which dialect involvement took Bennie through different rules.

e.g. She made her own paints from the roots that Billy

gathered from the swamps,

This one sentence contains four miscues in which zero morphemes are substituted for the inflectional morphemes of the text. Since these are consistent with Bennie's grammatical and semantic systems, they are not considered to be disruptive in any way.

Bennie did not make any alternate optional transformations. This is revealing. In order to re-structure successfully, the reader must correctly infer the meaning and deep structure of the author but proceed by choosing an optional transformational rule. Bennie is not that proficient a reader. In 24.7% of cases he changes deep structure and 24.7% of his miscues cause the deep structure to be lost completely.

2A Graeme (121): Graeme made a total of 41 transformation miscues. Of these, 25 represent changes in deep structure. This total is higher than Bennie's and since Graeme had fewer miscues, the percentage is much higher, 24.7% to 45.5% for Bennie and Graeme, respectively. Transformations coded <u>1</u>, although involving a change in deep structure, do retain a syntax which is acceptable or at least acceptable with the portion of the sentence preceding or following it. The revealing category here, is category 4, in which the deep structure is completely lost. Graeme had only 10 such miscues whereas Bennie had 23. Graeme's completely disrupting miscues, while much lower than Bennie's 23, represent the highest number in this category in the 2A group. Graeme has 5 dialect related transformations. He uses one alternate option, category 3.

6H Nancy (602); Nancy made a total of fourteen re-transformations. Of these, 47.1% did change deep structure. However, none of Nancy's miscues resulted in a complete loss of deep structure. Although the members of this group were all white middle class students whose dialect matched very closely that of the text, Nancy did make one dialect miscue.

deers e.g. <u>All deer look alike</u>.

This was coded 2 idiolect.

Nancy had 29.4% of her miscues in the optional transformation category. She is handling the meaning well and processing deep structures. This allows her to be free in her use of optional transformations.

Tables 13, 14 and 15 show the raw scores and percentages for the subjects across the five transformation categories. Figure 8 presents the mean percentages in each transformation category in graphic form.

Conclusions:

- 1. All subjects made more miscues which involved transformations than miscues which did not.
- 2. The 6H group made a higher percentage of transformations which changed deep structure than did the other two groups.

TRANSFORMATIONS

GROUP 6L

SUBJECT ** #	NO TRANSFORMATIONS	DIFFERENT DEEP STRUCTURE	DIALECT TRANSFORMATION	ALTERNATE OPTION	DEEP STRUCTURE LOST
	0	1	2	3	4
188	16	23	31	0	23
	17.2	24.7	33.3	0.0	24.7
189	15	19	9	0	9
	28.8	36.5	17.3	0.0	17.3
190	40	42	23	0	16
	33.1	34.7	19.0	0.0	13.2
191	36	38	7	1	33
	31.3	33.0	6.1	0.9	28.7
192	32	36	30	0	15
	28.3	31.9	26.5	0.0	13.3
MEAN %	27.7	32.2	20.4	0.2	19.4

TRANSFORMATIONS

GROUP 2A

SUBJECT	NO TRANSFORMATIONS	DIFFERENT DEEP STRUCTURE	DIALECT TRANSFORMATIONS	ALTERNATE OPTION	DEEP STRUCTURE LOST
	0	1	2	3	4
121	14	25	5	1	10
	25.5	45.5	9.1	1.8	18.2
122	30	39	0	1	5
	40.0	52.0	0.0	1.3	6.7
123	19	25	2	0	3
	38.8	51.0	4.1	0.0	6.1
124	19	20	1	6	3
	38.8	40.8	2.0	12.2	6.1
125	20	13	15	0	0
	41.7	27.1	31.3	0.0	0.0
MEAN %	37.0	43.3	9.3	3.1	7.4

TRANSFORMATIONS

GROUP 6H

SUBJECT	NO TRANSFORMATIONS	DIFFERENT DEEP STRUCTURE	DIALECT TRANSFORMATIONS	ALTERNATE OPTIONS	DEEP STRUCTURE LOST
	0	1	2	3	4
601	3	14	0	0	5- 0
	17.6	82.4	0.0	0.0	0.0
602	3	8	1	5	0
	17.6	47.1	5.9	29.4	0.0
603	3	9	0	4	1
	17.6	52.9	0.0	23.5	5.9
604	4	3	0	3	0
	40.0	30.0	0.0	30.0	0.0
605	8	18	0	8	0
	23.5	52.9	0.0	23.5	0.0
MEAN %	23.3	53.1	1.2	21.3	1.2



Part of this higher percentage is due to the extremely low percentage in categories 2 and 4, 1.2% in each.

- 3. The H group is much more free with optional transformations which indicates that they are processing meaning and deep structure effectively.
- 4. The L group is significantly higher in percentage of miscues causing complete loss of deep structure. Miscues of this type cause complete loss of syntax which in turn results in loss of meaning.
- 5. Since the very proficient readers make a relatively high percentage of changes in deep structure, this type of change must not be too significant in itself. Other studies have shown (Goodman, K. 1969:105) that re-transformation miscues are more likely to have a high semantic proximity than a high syntactic proximity. What is more significant is the percentage of miscues which cause complete loss of deep structure. This figure diminishes sharply across the groups from L to H.

Intonation:

Many instructional programs show concern for intonation in reading.

Probably the best reading method is practice in speaking and oral reading of familiar patterns, with emphasis upon the native intonations. (Lefevre 1964:43)

The Goodman Taxonomy of Reading Miscues provides for an analysis of the intonation miscues made by the reader.

The results in the present study are decisive. Over 95% of the miscues in each group involved no intonation shift whatsoever.

66

Furthermore, there is no significant difference between groups (see Table 16). The only type of intonation miscue made with any significant frequency was the sentence terminal miscue and this accounted for a maximum mean of 2.4% of the miscues in any group.

e.g. Kathy: Then Billy and his father built a summer house. They covered it with deer hides to keep the family dry in rainy weather. \longrightarrow When Billy and his father built a summer house, they covered it with deer hides to keep the family dry in rainy weather.

Interestingly, the 6L group had the lowest percentage of intonation miscues. Obviously intonation is not the problem it is thought to be, even for very weak readers.

Dialect:

While written language is in some ways a separate dialect, some of the subjects in the present study had dialects which were more divergent from the language of the text than others.

Dialects differ from one another in all three language subsystems: phonology, grammar and lexicon.

Phonological dialect differences are differences in pronunciation.

e.g. greasy
$$\longrightarrow$$
 [/grisi/
/grizi/]
test \longrightarrow [/tes/
/test/]

All readers pronounce written English in a manner consistent with their dialect. No American reading a British novel reads with British Received Pronunciation. In fact, an attempt to duplicate the pronunciation INTONATION

TERMINAL 7 0 0 0 0 0 1 EEMIINT **GROUP 6H** 94.1 94.1 100.0 100.0 100.0 97.6 CHANGE NO MEAN 6 5 SUBJECT 603 604 605 TERMINAL 7.3 2.7 2.0 2.0 0.0 SENTENCE **GROUP 2A** 96.0 95.9 95.9 100.0 89.1 95.4 CHANGE ON MEAN 12 15 13 13 15 17 20BJECT 2.2 3.8 3.3 0.0 TERMINAL 1.9 SENTENCE . **GROUP 6L** 96.8 96.2 96.7 100.0 99.7 97.9 CHANGE ON MEAN 188 189 190 192 191 SUBJECT

of the author would probably lead to a loss of meaning for the reader. Since all readers make use of their own pronunciation system and since this does not result in loss of meaning, but rather, the opposite, phonological variation has not been coded.

Grammatical differences deal with changes in sentence structure, inflectional endings, etc.

e.g. Billy liked to go to school.

Several of the children in the study made the above substitution. Actually, <u>like</u> is simply the phonetic realization of <u>liked</u> in the dialect of some Black English speakers. This is treated in the taxonomy not as the deletion of a past tense morpheme but rather as a substitution of one past tense form, <u>like</u>, for another, <u>liked</u>.

In making decisions as to what constitutes a miscue, the researcher is the model. If the observed response differs grammatically from the expected response, a miscue is recorded. From this point on, however, decisions regarding the miscue are made from the point of view of the dialect of the reader. Questions are asked such as, "Does the miscue result in a syntactically acceptable sentence within the dialect of the reader?" Does the miscue cause meaning loss or meaning change within the dialect of the reader?"

Lexical dialect differences are frequent in speech but do not often appear in reading. One notable example from other studies done at Reading Miscue Research is found in a story by the British author Raold Dahl.

e.g. <u>He swung the car around so the headlamps would not wake</u> <u>Harry Pope</u>.

Most American readers substitute headlights for headlamps.

The dialect differences most prominent in this study are grammatical.

The dialect category of the taxonomy has five alternatives:

0 - dialect is not involved in the miscue

1 - dialect is involved in the miscue

2 - idiolect is involved in the miscue

4 - secondary dialect involvement

9 - unsure, a lack of conclusive information

It is sometimes difficult to draw a line between <u>dialect</u> and <u>idiolect</u> but generally <u>dialect</u> refers to a feature shared by a group of people while idiolect designates features limited to individuals.

deers e.g. <u>All deer look alike</u>.

The substitution of <u>deers</u> was coded as an idiosyncratic feature in the speech of the only subject who made this miscue.

Secondary dialect involvement is said to have occurred when in making a substitution miscue, the reader utilizes a dialect alternative.

e.g. They packed their belongings.

The reader who made the above miscue shows many examples of zero inflection for past tenses. This miscue would be considered <u>picked</u> for packed with secondary dialect involvement.

Tables 17, 18 and 19 show the percentage of miscues made by each subject as well as the number of such miscues.

The 6H group were all white middle class students whose dialect differed minimally from that of the text. The 6L and 2A groups were inner-city Detroit children most of whom show evidence of Black English in their speech. Interestingly, Graeme, who is a Scottish immigrant, showed 11% dialect miscues and these were Black English features.

DIALECT

GROUP 6L

X #	NOT INVOLVED	INVOLVED	IDIOLECT	SECONDARY	DOUBTFUL
188	62	28	0	3	0
	66.7	30.1	0.0	3.2	0.0
189	43	8	0	1	0
	82.7	15.4	0.0	1.9	0.0
190	94	21	0	4	1
	78.3	17.5	0.0	3.3	0.8
191	107	6	0	2	0
	93.0	5.2	0.0	1.7	0.0
192	82	24	0	7	0
	72.6	21.2	0.0	6.2	0.0
MEAN X	78.7	17.9	0.0	3.2	0.2

Table 17

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DIALECT

GROUP 2A

SUBJECT	NOT INVOLVED	INVOLVED	IDIOLECT	SECONDARY	DOUBTFUL
121	49	6	0	0	0
	89.1	10.9	0.0	0.0	0.0
122	75	0	0	0	0
	100.0	0.0	0.0	0.0	0.0
123	47	2	0	1	0
	94.0	4.0	0.0	2.0	0.0
124	47	1	0	1	0
	95.9	2.0	0.0	2.0	0.0
125	31	15	0	1	1
	64.6	31.3	0.0	2.1	2.1
MEAN 7	88.7	9.6	0.0	1.2	0.4

Table 18

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72

DIALECT

GROUP 6H

SUBJECT	NOT INVOLVED	INVOLVED	IDIOLECT	SECONDARY	DOUBTFUL
601	17	0	0	0	0
	100.0	0.0	0.0	0.0	0.0
602	16	0	1	0	0
	94.1	0.0	5.9	0.0	0.0
603	17	0	0	0	0
	100.0	0.0	0.0	0.0	0.0
604	10	0	0	0	0
	100.0	0.0	0.0	0.0	0.0
605	34	0	0	0	0
	100.0	0.0	0.0	0.0	0.0
MEAN X	98.8	0.0	1.2	0.0	0.0

The 2A group had a mean dialect involvement of 11.3% while the mean for the 6L group was 24.88%. There seems to be little correlation between dialect involvement and comprehending score. Table 20 and Figure 9 include data from groups 6L and 2A. The dialect category is not relevant to the 6H group. The scattergram, Figure 9, shows the random nature of the relationship. In the 2A group, Cheryl (125), the student with the highest degree of dialect involvement, obtained the highest comprehending score, but this relationship is not general across subjects.

- Phonological dialect variations occur between any reader and a given text. The goal of reading is to obtain meaning and this is best accomplished if the reader uses his own pronunciation system. In silent reading we do not know what dialect pronunciation the reader uses, if any.
- 2. Grammatical dialect variation in the present study was limited almost entirely to morphological features. The Black dialect speakers made use of Ø plural, Ø possessive, and Ø past tense morphemes in alternation with standard English morphology. There was an occasional use of a double negative construction but this was the only structural change that went beyond the morphological level that could be attributed to dialect. Thus, even grammatical dialect features appear to be of little significance.
- 3. The L group had more dialect influenced miscues than did the A group. However, there was no relationship between dialect involvement and comprehending scores within groups. Bennie (188) had the highest degree of dialect involvement in the L group and the second highest comprehending score, while

74

DIALECT / COMPREHENDING RELATIONSHIP





Figure 9

Stanley (191) had the lowest dialect involvement with the third lowest comprehending score. It would be too simplistic, then, to claim that dialect divergence inhibits effective reading. The question of why the weaker group had the higher degree of dialect involvement is one which bears investigation. It could be that teacher evaluation plus standardized reading tests, both of which are biased toward the standard dialect, have effectively, over a period of six years, sifted these children to the bottom track and the children now match the lower expectations.

4. There seems to be no indication of a need for special dialect materials. The second grade group, all of whom live in inner-city Detroit, are processing a third grade story written in standard English quite effectively. The sixth graders are not so successful but there is no indication that dialect is responsible for their weakness. On the other hand, both inner-city groups had difficulty with the cultural aspects of the story. Their miscues indicated that they do not have the conceptual framework to handle Indians, wild-life and other concepts foreign to their experience. Any change in material should focus on experiential familiarity rather than dialect.

Structural levels:

The next four categories involve four structural levels: morphological, word, phrase, and clause levels.

The Goodman Taxonomy of Reading Miscues enables analysis of the specific structural levels involved in each miscue. Miscues may involve

76

morphological, word, phrase and clause level changes. There is a high degree of interrelationship between the categories. An omission or insertion at one level is usually a substitution at another.

deers e.g. All deer look alike.

The miscue consists of an insertion at the morphological level and a substitution at the word level.

e.g. <u>They drove until they found a good place to camp</u>. The omission of <u>good</u> is coded as an omission at the word level, a substitution at the phrase level - <u>a place</u> for <u>a good place</u> - and an omission at the clause level. Adjectives are considered to be derived from embedded clauses.

e.g. They found a place.

The place was good.

Morphology:

Morphology is handled by the Goodman Taxonomy of Reading Miscues in two categories. The first deals with process: substitution, insertion, omission and reversal of bound morphemes. The second determines the type of morpheme involved: inflectional, derivational, contraction, etc. Any change at the morphological level requires analysis in both sub-categories.

e.g. He lived) with his father and mother.

Substitution of inflectional affix paints She made paint.

Insertion of inflectional affix beautiful What a beauty.

Insertion of derivational affix

He packed careful(1y)

Omission of derivational affix

Tables 21, 22 and 23 present the number and percent of miscues involving various types of morpheme change. They also present two columns of data concerning the type of morphemes involved in the given change. Of these, column one shows the number and percent of miscues in which morphology was not involved. Column two gives the number and percent of miscues involving inflectional endings. Since these two columns comprise at least 90% of miscues in most cases, the other types of morphemes involved have not been included in the table.

The tables indicate that morphology is not a severe problem for any of the readers. A mean of 69.1% of the miscues made by the 6L group did not involve the bound morpheme level. This mean increased to 74.1% and 94.1% for the A and H groups, respectively. The H group was nearly free of bound morpheme miscues.

Of the possible changes, substitution accounted for the highest number of bound morpheme miscues. The L group had a total of 108 substitution miscues at this level. The A had 40 and the H only 4. This category relates very directly to dialect. Dialect alternatives with Ø morpheme inflections were coded as substitutions of inflectional morphemes. If all dialect substitutions were removed, the figures for the 6L group would look much more like those of the other two groups. Since dialect seems not to be a major concern, it appears that morphology is not a problem for readers.

Word level:

Most miscues involve the word level in some way. The high degree of involvement at this level causes most reading instruction to center

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<u></u>	ß
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		MORPHEME CH	ANGE			MORPHEME TY	PE
SUBJECT	NO CH A NGE NO	NOITUTITZĄUZ	NOITARNI	NOISSIWO	KEVERSAL	INVOLVED Not	INFLECTION
188	57	32	1	e	0	56	29
	61.3	34.4	1.1	3.2	0.0	60.2	31.2
189	34	12	ũ	7	1	34	10
	65.4	23.1	5.8	3.8	1.9	65.4	19.2
190	16	20	2	4	0	91	24
	75.8	16.7	4.2	3.4	0.0	75.8	20.0
191	91	11	۲	6	0	16	20
	78.4	9.5	4.3	7.8	0.0	78.4	17.2
192	73	33	ũ	4	0	73	32
	64.6	29.2	2.7	3.5	0.0	64.6	28.3
MEAN Z	69.1	22.6	3.6	4.3	0.4	68.9	23.2

Table 21

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GROUP

		MORPHEME (CHANGE			MORPHEME 1	YPE
≫a ⊯ 20B1ECL	NO CHANGE NO	NOITUTITZEUZ	INSERTION	NOISSIWO	REVERSAL	INVOLVED Not	INFLECTION
121	38	10	ŝ	e	0	38	13
	70.4	18.5	5.6	5.6	0.0	70.4	24.1
122	65	Ч	4	5	0	65	9
	86.7	1.3	5.3	6.7	0.0	86.7	8.0
123	38	ß	Ŀ	1	0	39	8
	77.6	10.2	10.2	2.0	0.0	79.6	16.3
124	39	e	9	1	0	39	80
	79.6	6.1	12.2	2.0	0.0	79.6	16.3
125	27	21	0	0	0	27	19
	56.3	43.8	0.0	0.0	0.0	56.3	39.6
MEAN Z	74.1	15.9	6.7	3.3	0.0	74.5	20.9

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		MORPHEME CI	HANGE			MORPHEME 1	YPE
≫ ★ SUBJECL	ИО СН Р ИСЕ ИО	NOITUTITZEUS	NOITARZUI	NOISSIWO	KEVERSAL	INAOFAED NOL	INFLECTION
601	15	1	0	0	1	15	ы
	88.2	5.9	0.0	0.0	5.9	88.2	11.8
602	16	1	0	0	0	16	-1
	94.1	5.9	0.0	0.0	0.0	94.1	5.9
603	17	0	0	0	0	17	0
	100.0	0.0	0.0	0.0	0.0	100.0	0.0
604	10	0	0	0	0	10	0
	100.0	0.0	0.0	0.0	0.0	100.0	0.0
605	30	2	0	7	0	30	4
	88.2	5.9	0.0	5.9	0.0	88.2	11.8
MEAN Z	1.46	3.5	0.0	1.2	1.2	94.1	5.9

MORPHOLOGY

GROUP 6H

around a concern with words: word identification, vocabulary drills, etc. But words are only parts of larger structures and the interrelationships must be examined as well.

Word level miscues are identified as to process: substitution, insertion, omission and reversal. A second sub-category examines the types of words involved.

1 - A multiple morpheme word is inserted or omitted or a multiple morpheme word is substituted for another multiple morpheme word.

e.g. packed \rightarrow packs

2 - A single morpheme word or words involved.

e.g. $fawn \rightarrow fun$

3 - A multiple morpheme word is substituted for a single morpheme word.

e.g. basket \rightarrow baskets

4 - A single morpheme word is substituted for a multiple morpheme word.

e.g. sticks \rightarrow stick

5 - A word in a larger word is substituted.

e.g. cranberries \rightarrow cackleberries

6 - A word in a compound is substituted.

e.g. summer house \rightarrow summertime

7 - A non-word is substituted for a real word.

e.g. fawn -> \$frawn

8 - A dialect alternative is used.

e.g. <u>liked</u> \rightarrow <u>like</u>

The choice between 8 and 4 depends largely on the frequency of dialect responses in the individual's reading.

Tables 24, 25 and 26 itemize the number and percentage of miscues involving no change, substitution, insertion, omission and reversal at the word level.

Tables 27, 28 and 29 indicate the free morpheme types involved in the changes.

The data show:

- Most miscues involving words were substitution miscues. Both the L and A groups had 84.6% substitution miscues at this level, the H group only 47.8%.
- 2. The biggest difference between groups was in the insertion category with L = 1.1%, A = 5.7% and H = 21.1%. The insertions are related to the transformation category. The H readers made a larger percentage of this type because of their application of optional transformation which allowed for the insertion or deletion of optional elements.
- 3. Of the two lower groups, omissions were much more frequent in 6L. They omitted 57 words compared with 22 for the A group. These weak readers omitted the words they did not know rather than attempt to predict. Most often, these omissions resulted in severe damage to the syntax.

The H group made 14 omissions for a mean of 14.7%. They made a high number of omissions for a very different reason from that of the L group. Omissions, like insertions, for the H group are related to optional transformations. The words

FREE MORPHEMES

GROUP 6L

SUBJECT	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	REVERSAL
188	2	75	0	19	0
	2.1	78.1	0.0	19.8	0.0
189	2	50	0	2	0
	3.7	92.6	0.0	3.7	0.0
190	8	102	4	11	0
	6.4	81.6	3.2	8.8	0.0
191	2	104	1	17	1
	1.6	83.2	0.0	13.6	0.8
192	5	105	2	8	0
	4.2	87.5	1.7	6.7	0.0
MEAN %	3.6	84.6	1.1	10.5	0.2

FREE MORPHEMES

GROUP 2A

SUBJECT	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	REVERSAL
121	4	51	3	5	0
	6.3	81.0	4.8	7.9	0.0
122	0	68	3	4	0
	0.0	90.7	4.0	5.3	0.0
123	0	44	3	3	0
	0.0	88.0	6.0	6.0	0.0
124	1	36	6	9	0
	1.9	69.2	11.5	17.3	0.0
125	1	46	1	1	0
	2.0	93.9	2.0	2.0	0.0
MEAN %	2.1	84.6	5.7	7.7	0.0

FREE MORPHEMES

GROUP 6H

SUBJECT	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	REVERSAL
601	2	10	2 ·	2	2
	11.1	55.6	11.1	11.1	11.1
602	2	7	4	4	0
	11.8	41.2	23.5	23.5	0.0
603	3	6	5	3	0
	17.6	35.3	29.4	17.6	0.0
604	0	5	3	1	1
	0.0	50.0	30.0	10.0	10.0
605	5	20	4	4	2
	14.3	57.1	11.4	11.4	5.7
MEAN %	11.0	47.8	21.1	14.7	5.4

ИОКД IN WORD IN WORD IN WORD IN ИОИ-WORD ИОИ-WORD	2 1 7 31	3 2.1 1.0 7.3 32.3	3 0 7 8	4 5.6 0.0 13.0 14.8	2 0 12 23	0 1.6 0.0 9.6 18.4	1 0 7 6	4 0.8 0.0 5.6 4.8	3 0 15 30	2 2.5 0.0 12.5 25.0	9 2.6 0.3 9.6 19.1	۲.
WULTIPLE Single For	80	8.3	4	1.4	10	8.0	13	10.4	11	9.2	8.9	Table 27
SINGEE WULTIFLE FO SINGLE SINGLE FOR	30 5	31.3 5.2	20 6	37.0 11.1	57 5	45.6 5.0	68 10	54.4 8.0	46 5	38.3 4.2	41.3 6.0	
MULTIPLE FOI	10	10.4	4	7.4	80	6.4	Ì8	14.4	S	4.2	7.9	
NO CHANGE	2	2.1	7	3.7	89	6.4	7	1.6	S	4.2	x 3.6	
≫a ⊯ RNBNECL	188		189		190		191		192		MEAN	

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FREE MORPHEME TYPES, GROUP 6L

FREE MORPHEME TYPES, GROUP 2A

DIALECT ALTERNATIVE	9	9.5	0	0.0	7	4.0	0	0.0	Ń	0.6	8.8
									Ч	e	
MON ∸MOKD	n	4.8	6	12.0	9	12.0	2	3.8	ø	16.3	9.8
COMPOUND		0.	_	0.		0.		80		L.	• 6
MOBD IN	0	0	0	0	0	0	7	e	7	4	Ч
FONCES MOSD MOSD IN	Ч	1.6	7	2.7	0	0.0	4	7.7	7	4.1	3.2
WULTIPLE		en en		n		0		9		Ę	6
SINCLE FOR	4	9	4	5.	7	4.	5	6	6	4.	Ω.
NULTIPLE FOR	6	14.3	ø	10.7	9	12.0	ъ	9.6	θ	0.0	9 .3
		9		7		0		7		7	e
MULTIPLE SINGLE POR	30	47.	77	58.	25	50.	30	57.	16	32.	49.
MULTIPLE FOR MULTIPLE	9	9.5	80	10.7	6	18.0	e	5.8	e	6.1	10.0
สองพืชว		m		0		0		•		0	0
ON	4	9	0	0.0	0	0.0	Ч	1.5	Ч	2.(2.(
≫ # SUBJECT	121		122		123		124		125		MEAN X

DIALECT ALTERNATIVE	0	0.0	Ч	5.9	0	0.0	0	0.0	0	0.0	1.2
NON-MORD	0	0.0	Г	5.9	0	0.0	Г	10.0	0	0.0	3.2
COMEONND MOKD IN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
FONCEE MOED MOED IN	0	0.0	0	0.0	0	0.0	н	10.0	Ч	2.9	2.6
MULTIFLE SINGLE FOR	7	11.1	1	5.9	ο	0.0	0	0.0		8-6	5.1
MULTIPLE FOR SINGLE	7	11.1	I	5.9	I	5.9	0	0.0	0	0.0	4.6
MULTIPLE SINGLE POR	10	55.6	11	64.7	11	64.7	۲.	70.0	22	62.9	63.6
MULTIPLE FOR	0	0.0	0	0.0	7	11.8	0	0.0	e	8.6	4.1
CHVNCE NO	4	22.2	7	11.8	e	17.6	Г	10.0	9	17.1	15.7
≫ ≉ ≉ ≉	601		602		603		604		605		MEAN X

Table 29

FREE MORPHEME TYPES, GROUP 6H

omitted in the two groups differed sharply, also. The L group's omissions were mostly content words: <u>swamp</u>, <u>cranberry</u>, <u>tribe</u>, <u>Winnebago</u>, etc. The H group omitted function words such as <u>the</u> and <u>that</u> where they were optional. e.g. <u>Billy knew that (spring) would come</u>.

Phrase level:

Unlike most reading tests and inventories, the Goodman Taxonomy of Reading Miscues looks beyond the grapheme and the word, to language in its larger context. There are five possibilities at the phrase level:

0 - No change

- 1 Substitution one phrase is substituted for another.
 - e.g. Cheryl: <u>They drove until they found a good place to camp</u>. The noun phrase <u>a place</u> is substituted for the noun phrase a good place.

2 - Insertion - a noun phrase or verb phrase is inserted.

e.g. Bennie: But when the heavy snow...

But when he having snowed...

The ER contains a noun phrase only, the OR has a noun phrase followed by a verb phrase.

3 - Omission - a noun phrase or a verb phrase is omitted.

e.g. Stanley: When he wasn't in school he (skated) with his

friends on the river ice.

The omission of the verbal element in the verb phrase is considered by the *Taxonomy* as a loss of the verb phrase.

- 4 Reversal a noun phrase and a verb phrase are reversed.
 - e.g. "Poor little fawn!" said Billy → "Poor little fawn!" Billy said.

Tables 30, 31 and 32 present the number and percentage of phrase level miscues made by the subjects. Figure 10 shows the relationships graphically.

1. The H group had a significantly higher percentage of miscues at the phrase level. These figures reflect the involvement of the proficient readers in units larger than the word. They go directly to deep structure, extract meaning, and restructure. The higher frequency of optional transformations is reflected again at this level.

The H group made a larger percentage of phrase level substitutions than the other groups. Many of the omissions and insertions at the word level are substitutions at the phrase level.

e.g. <u>Billy took the sticks off</u>. → <u>Billy took the two</u> <u>sticks off</u>. <u>They drove until they found a good place to camp</u>. <u>White men from the cities came to hunt in the forest</u> <u>near(the)Winnebago land</u>.

Most of these miscues for the H group changed meaning very little. The larger context of the discourse allowed such miscues. In the first example, the insertion of <u>two</u> is natural as the paragraph has supplied the information that it was two sticks that Billy used.

The 2A group are handling a larger percentage of structures beyond the word than the L group are. They are on their way to becoming proficient readers. It must be kept in mind that they are only second graders dealing with a story at least a
PHRASE

GROUP 6L

SUBJECT * #	NO CHANGE	SUBSTITUTION	I NS ERT ION	NOISSIMO	REVERSAL
188	63	15	2	13	0
	67.7	16.1	2.2	14.0	0.0
189	34	12	3	2	1
	65.4	23.1	5.8	3.8	1.9
190	80	31	2	8	0
	66.1	25.6	1.7	6.6	0.0
191	70	21	4	20	0
	60.9	18.3	3.5	17.4	0.0
192	76	27	5	7	0
	66.1	23.5	4.3	6.1	0.0
MEAN %	65.2	21.3	3.2	9.6	0.4

PHRAS E

GROUP 2A

SUBJECT % #	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	REVERSAL
121	31	17	3	5	0
	55.4	30.4	5.4	8.9	0.0
122	45	22	4	4	0
	60.0	29.3	5.3	5.3	0.0
123	27	18	1	4	0
	54.0	36.0	2.0	8.0	0.0
124	23	22	3	2	0
	46.0	44.0	6.0	4.0	0.0
125	37	9	1	1	0
	77.1	18.8	2.1	2.1	0.0
MEAN %	58.5	31.7	4.2	5.7	0.0

PHRASE

GROUP 6H

SUBJECT	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	REVERSAL
601	6	9	2	0	0
	35.3	52.9	11.8	0.0	0.0
602	7	7	2	1	0
	41.2	41.2	11.8	5.9	0.0
603	5	10	1	0	1
	29.4	58.8	5.9	0.0	5.9
604	4	5	0	0	1
	40.0	50.0	0.0	0.0	10.0
605	15	14	3	0	2
	44.1	41.2	8.8	0.0	5.9
MEAN %	38.0	48.8	7.7	1.2	4.4



grade level beyond them. For many of them it is still a struggle. Nevertheless, their phrase level miscues indicate that they are dealing with higher level structures.

- The H group was the only group to make a significant number of phrase level reversals. There again they did not change meaning nor disrupt deep structure seriously.
 - e.g. "Poor little fawn!" said Billy. → "Poor little fawn!"
 Billy said.
 He picked up the fawn. → He picked the fawn up.
 One of the things he liked most was cranberry picking.
 → One of the things he liked most was picking
 cranberries.

Clause level:

Clause level miscues are handled in six taxonomy sub-categories.

- 0 No change the miscue does not affect the clause level.
- 1 Substitution one clause is substituted for another.
 - e.g. Kurt: Next year when the Winnebago Dance Time came,

Billy sang for all the tribe.

Next year when Billy came to the Winnebago Dance

Time, he sang for all the tribe.

- 2 Insertion a deep structure clause is inserted. little e.g. Kurt: <u>Billy knew that</u> fawns were always very shy.
- 3 Omission a deep structure clause is omitted.

e.g. Kathy: He was surprised that the little fawn didn't

run away.

The interrelationship of the various levels may be seen in the insertion and omission categories above. The insertion of <u>little</u>, is

an insertion at the word level, a substitution at the phrase level, and an insertion at the clause level.

4 - Clause dependency is changed within the sentence.

The dependent clause introduced by the deep structure clause marker that is lost by the replacement of and.

5 - Clause dependency is changed between sentences.

e.g. Bennie: Then he and the fawn would race together through the forest. Billy named his pet Lightfoot because he could run so fast. --> Then he and the fawn would race together. Through the forest Billy named his pet Lightfoot because he could run so fast.

The data indicate that there is not much difference between groups at the clause level (Tables 33, 34 and 35). While the H group had slightly more clause level change than the other two groups - 22.8% vs. 21.2% and 17.1% - the difference is not so great as at the phrase level. Change at the clause level, as at the phrase level, represents the processing of larger units than the word. The proficient readers are more adept at handling the larger units than are the weaker readers who are still concerned with identifying words. However, the *Taxonomy* deals with clauses at the deep structure level whereas phrases represent surface structure phenomena. In the transformation category it was seen that the H group made optional transformations at the surface level. The deep structure level was not involved in this type of transformation.

SUBJECT X #	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	DEPENDENCY WITHIN SENTENCE	DEPENDENCY BETWEEN SENTENCES
188	78	1	3	8	2	0
	84.8	1.1	3.3	8.7	2.2	0.0
189	44	2	1	3	1	1
	84.6	3.8	1.9	5.8	1.9	1.9
190	99	4	4	10	0	3
	82.5	3.3	3.3	8.3	0.0	2.5
191	90	11	8	5	0	1
	78.3	9.6	7.0	4.3	0.0	0.9

192

MEAN X

96

84.2

82.9

4

3.5

4.3

Table 33

8

7.0

6.8

0

0.0

0.8

0

0.0

1.1

6

5.3

4.2

98

CLAUS E

GROUP 6L

GROUP 2A

SUBJECT X #	NO CHANGE	SUBSTITUTION	I NS ERTI ON	NOISSIMO	DEPENDENCY WITHIN SENTENCE	DEPENDENCY BETWEEN SENTENCES
121	41	4	3	2	1	3
	75.9	7.4	5.6	3.7	1.9	5.6
122	58	5	5	5	2	0
	77.3	6.7	6.7	6.7	2.7	0.0
123	35	3	4	5	2	0
	71.4	6.1	8.2	10.2	4.1	0.0
124	38	5	2	4	0	0
	77.6	10.2	4.1	8.2	0.0	0.0
125	44	1	2	1	0	0
	91.7	2.1	4.2	2.1	0.0	0.0
MEAN %	78.8	6.5	5.8	6.2	1.7	1.1

GROUP 6H

SUBJECT * #	NO CHANGE	SUBSTITUTION	INSERTION	NOISSIMO	DEPENDENCY WITHIN SENTENCE	DEPENDENCY Between sentences
601	15	0	0	1	0	1
	88.2	0.0	0.0	5.9	0.0	5.9
602	10	3	1	2	0	1
	58.8	17.6	5.9	11.8	0.0	5.9
603	14	2	0	1	0	0
	82.4	11.8	0.0	5.9	0.0	0.0
604	8	1	0	1	0	0
	80.0	10.0	0.0	10.0	0.0	0.0
605	26	3	3	2	0	0
	76.5	8.8	8.8	5.9	0.0	0.0
MEAN X	77.2	9.6	2.9	7.9	0.0	2.4

All of the groups show very little change of clause dependency, either within the sentence or across sentences. Miscues of this type disrupt syntax a great deal and, as a result, usually upset meaning as well. They are directly related to intonation, with either a comma or period involved in the change. The intonation category revealed that readers were not experiencing problems in that area and the clause level data support that conclusion.

Conclusions:

- 1. There is a sharp differentiation between groups in the area of syntactic acceptability. The miscues produced by the H group result in a much higher percentage of syntactically acceptable structures than those of the L group. The A group are developing in the direction of the H group with only 12.4% syntactically unacceptable miscues compared with 27.5% for the low group.
- 2. The H group are much higher than the other two groups in the area of syntactic change. They made a greater percentage of optional transformations, revealing a success in dealing with deep structure and a flexibility with the surface options showing a high command of their grammar during reading. This grammatical flexibility is evident in the higher percentage of phrase and clause level change for the H group.
- The areas of morphology and intonation are not problems for any of the groups.
- 4. There is no convincing relationship between dialect and proficient reading. Most dialect miscues are either phonological

101

or inflectional, neither of which disrupts syntax or meaning in any way.

The data from this chapter will be re-examined in greater detail in Chapter VI: Conclusions and Instructional Implications.

CHAPTER IV: THE SEMANTIC SYSTEM

Introduction:

Conventional orthography, being close to the linguistically significant system underlying ordinary speech, can be read only when the surface structure is known, that is, when the utterance is to some degree understood. (Chomsky 1968:50)

The act of reading must culiminate in meaning. Anything short of meaning is not reading. Because the task of reading starts with print and ends with meaning, it is easy to assume that the process is linearly ordered in this direction. The traditional model of reading is:



The reader "decodes" the print to speech, either vocally or subvocally. From the phonetic representation he derives meaning, in other words, he hears himself say the words and thus derives meaning. Reading then becomes partly a listening task.

There is a good deal of evidence to support Chomsky's view that readers move from understanding to phonetic output.

The difference between fluent and beginning reading may be epitomized in the manner in which the reader makes use of syntax, the bridge between surface structure and meaning. The fluent reader can be regarded as crossing this bridge from the meaning side, merely sampling the visual information to confirm his expectations. In other words, analysis of meaning at the deep structure level leads to the analysis of the surface visual structure... The beginning reader, however, spends most of his time crossing the bridge of syntax in the opposite direction. Rather than predict surface structure from meaning, which requires only a minimum of visual information, he must deduce meaning from surface structure. (Smith, F. 1971:221)

Paul Kolers (1966) conducted an experiment using French-English bilinguals. They were given materials to read written in both French and English combined, a word or two of English, a phrase in French, etc. The subjects read the material producing accurate meaning but not producing orally the exact language which was written. They switched back and forth between languages as did the written materials but not in the same places in the text. Clearly the readers were processing meaning before producing the oral representation. Some read the entire passage in one language and did not realize it was written in two languages.

Frank Smith (1971:95) gives an account of an experiment done by Cattell in the last century. In the experiment, several letters were shown to subjects. The letters were arranged on a card in a random order. They were shown for a period of one second. The subjects were able to recall only four to five letters. Next, a series of letters were presented to the subjects, this time arranged into random words. After an exposure time of one second, the subjects were able to recall two words or approximately eight to ten letters. The point here is, the subjects were not remembering individual letters, they were identifying words. In other words, the identification of the words came before the identification of the letters. Next the subjects were presented with words presented in meaningful phrases. In this format, they could recall about five words or a total of from twenty to thirty

104

letters. It is clear that in this case they were identifying meanings before they were identifying individual words or letters.

In connection with the present study a preliminary study was conducted to determine the influence of dialect on reading. Four second grade white children who had had minimal exposure to Black English were given material to read which was written in dialect (Baratz and Stewart: 1970). The children simply translated the material into their own dialect. In order for translation of any kind to take place one must know the meaning. The children did not "decode" into speech, hear themselves, then arrive at meaning. Their oral output did not match the printed text. They preserved the meaning but processed it through their own grammatical system.

Reading, then, is not a linear process, but rather a circular one. Meaning is the ultimate goal of reading but its acquisition is not the last step. The interaction between print, grammar, and meaning is a simultaneous one with all systems in operation at all times.

This chapter investigates the success of the subjects in dealing with semantics.

Semantic acceptability:

Table 36 is a table presenting the degree of semantic acceptability of the miscues made by the three groups.

The categories were:

0 - Unacceptable - the miscue results in a completely unacceptable sentence semantically.

e.g. Graeme: <u>Billy liked to take part in the work of his tribe</u>. The omission of the last word prohibits the miscue from being acceptable with prior or with after.

SEMANTIC ACCEPTABILITY

GROUPS	SUBJECT 26 #	UNACCEPTABLE	ACCEPTABLE WITH PRIOR	ACCEPTABLE WITH AFTER	ACCEPTABLE IN SENTENCE	ACCEPTABLE IN PASSAGE
	188	40.9	21.5	10.8	2.2	24.7
	189	36.5	25.0	1.9	7.7	28.8
61.	190	49.2	31.7	9.2	5.0	5.0
02	191	45.2	27.8	9.6	10.4	7.0
	192	38.9	30.1	8.0	10.6	12.4
	MEAN	42.14	27.22	7.9	7.18	15.58
	121	38.2	25.5	10.9	3.6	21.8
	122	26.7	28.0	22.7	10.7	12.0
2A	123	26.5	34.7	8.2	8.2	22.4
	124	16.3	32.7	4.1	8.2	33.8
	125	18.8	12.5	8.3	10.4	50.0
	MEAN	25.3	26.68	10.84	8.22	28.00
	601	0.0	29.4	0.0	5.9	64.7
	602	11.8	5.9	0.0	0.0	82.4
	603	11.8	11.8	0.0	5.9	70.6
	604	0.0	10.0	0.0	0.0	90.0
	605	5.9	14.7	0.0	14.7	64.7
	MEAN	5.9	14.36	0.0	5.3	74.48

- 1 Acceptable with prior only.
 - e.g. Graeme: Billy knew that fawns were always very shy.
- 2 Acceptable with after only.
 - e.g. Deborah: There in the dry, dead leaves he saw a little fawn.
- 3 Acceptable in sentence only.
 - plants e.g. Deborah: She made her own paints from the roots that Billy gathered.

The substitution of <u>plants</u> results in a semantically acceptable sentence but the meaning is not consistent with the rest of the story.

4 - Acceptable in the entire sentence.
 the
 e.g. Deborah: When^summer ended, the Whitemoons packed

their belongings again.

There is a great deal of difference between groups in the category of semantic acceptability. The L group show a mean of 42.1% of their miscues completely unacceptable with only 15.6% of them completely acceptable. On the other hand, only 5.9% of the miscues of the H group resulted in semantically unacceptable sentences.

The A group are doing significantly better than the L group in semantic acceptability, with a mean of 28%. Figure 11 presents the group means graphically.

Syntactic and semantic acceptability:

Figure 12 compares syntactic acceptability with semantic acceptability across groups. The five categories 0-4 have been regrouped into three for convenience: <u>totally unacceptable</u>; <u>partially acceptable</u>, which includes acceptable with prior and after; and <u>acceptable</u>, which SEMANTIC ACCEPTABILITY



Figure 11

108

DEGREE OF SYNTACTIC AND SEMANTIC ACCEPTABILITY - MEANS



includes acceptable in the sentence and acceptable in the story. Syntactic acceptability is higher across all groups. There is a higher percentage of syntactically acceptable structures than semantically acceptable ones, and conversely a lower percentage of syntactically unacceptable structures. For the H group there is very little difference between the two categories; for the other groups the difference is much greater. Proficient readers are in good control of both systems. Weaker readers are functioning much more successfully with the syntax.

One major reason for the gap between syntax and semantics for the lower groups is their use of non-words. Non-words tend to be syntactically acceptable but they must be considered as a total loss semantically.

\$tribs e.g. Stanley: <u>Like all Indian tribes...</u> Stanley has inflected the non-word with a noun plural inflection: syntax is preserved but meaning is lost.

Syntactic and semantic change:

The Taxonomy, besides examining whether or not a sentence is semantically acceptable, also enables decisions to be made as to the semantic proximity of the response to the text. In other words, a reader might produce a sentence which is perfectly acceptable semantically but quite different in meaning from the expected response. Tables 37, 38 and 39 deal with degree of proximity of the observed response to the expected response.

As Smith's statement (p. 103) pointed out, syntax is a bridge between meaning and visual information in reading. The two systems, syntactic and semantic, are very difficult to separate. Figure 13

				Table 37				
34.8	21.5	3.9	13.9	5.0	20.3	0.0	0.0	MEAN %
38.5	19.2	0.0	15.4	0.0	23.1	0.0	3.8	
10	Ŋ	0	4	0	9	0	٦	192
10.0	25.0	10.0	10.0	5.0	40.0	0.0	0.0	
5	S	7	2	1	œ	0	0	191
41.7	25.0	0.0	8.3	0.0	25.0	0.0	0.0	
S	c	0	Ч	0	e	0	0	190
31.6	26.3	5.3	15.8	15.8	5.3	0.0	0.0	
9	S	г	n	e	Ч	0	0	189
52.0	12.0	4.0	20.0	4.0	8.0	0.0	0.0	
13	ຕ	Ч	ŝ	1	7	0	0	188
NO CHANGE	SLIGHT CHANGE	PERSON, TENSE NUMBER CHANGE	LOSS UNIMPORTANT JIATAU	ASPECT LOSS OF	INCIDENL WINOK	INCIDENL Wyjog	ANOMALOUS COMPLETELY	≈ ≠ SUBJECT

SEMANTIC CHANGE, GROUP 6L

				Table 38				
34.7	25.2	11.1	17.3	2.7	4.1	3.5	1.3	MEAN %
44.8	27.6	10.3	6*9	6.9	3.4	0.0	0.0	
13	ø	e	7	7	T	0	0	125
43.5	34.8	13.0	4.3	0.0	4.3	0.0	0.0	
10	80	£	г	0	ч	0	0	124
33. 3	26.7	20.0	6.7	6.7	6.7	0.0	0.0	
5	4	e	Ч	1	1	0	0	123
11.8	23.5	5.9	35.3	0.0	5.9	17.6	0.0	
7	4	ŗ	9	0	Ч	ß	0	122
40.0	13.3	6.7	33.3	0.0	0.0	0.0	6.7	
9	2	T	'n	0	0	0	1	121
AD CHANGE	SLIGHT CHANGE	PERSON, TENSE NUMBER CHANGE	LOSS UNIMPORTANT DETAIL	ASPECT LOSS OF	INCIDENL WINOK	MAJOR TNJOR	COMPLETELY COMPLETELY	≫ ★ SUBJECT

SEMANTIC CHANGE, GROUP 2A

				Table 39				
51.0	36.1	4.6	8.3	0.0	0.0	0.0	0.0	MEAN %
37.0	33.3	14.8	14.8	0.0	0.0	0.0	0.0	
10	6	4	4	0	0	0	0	605
44.4	44.4	0.0	11.1	0.0	0.0	0.0	0.0	
4	4	0	Ч	0	0	0	0	604
61.5	38.5	0.0	0.0	0.0	0.0	0.0	0.0	
80	'n	0	0	0	0	0	0	603
78.6	14.3	0.0	7.1	0.0	0.0	0.0	0.0	
11	7	0	Ч	0	0	0	0	602
33.3	50.0	8.3	8.3	0.0	0.0	0.0	0.0	
4	9	Ч	1	0	0	0	0	601
NO CHANGE	SLIGHT CHANGE	PERSON, TENSE	LOSS UNIMPORTANT DETAIL	VZLECL FOZZ OŁ	INCIDENL WINOK	MAJOR MAJOR	COMPLETELY ENOMELOUS	≫ ≈ 20B1ECL

SEMANTIC CHANGE, GROUP 6H



Syntactic



presents degree of syntactic and semantic change together graphically. For ease of reading, the nine categories have been grouped into three: change in major incident, change in minor incident, and slight or no change.

All groups had a very small percentage of miscues in the major change category, mainly because only fully acceptable sentences are coded for change. The H group show 5.1% major syntactic change and no major semantic change. They show a much higher degree of phrase level structural change than semantic change. The slight or no change category indicates that the H group changed semantics much less than syntax. It is important to remain true to the meaning of the text but not so important to retain the same syntax. Structural paraphrase is an integral part of language. The transformation category reveals that these proficient readers made use of optional transformations to a much greater extent than the slower groups. They are processing deep structure and providing alternate surface structures. The comparison between syntactic change and semantic change presents this process clearly.

Comprehending:

To comprehend is to understand what has been read. If miscues disrupt meaning to a great extent, comprehension is impeded. The *Taxonomy* enables calculation of a comprehending score. The term <u>comprehending</u> is used rather than <u>comprehension</u>. <u>Comprehension</u> is a term used by many in the field of reading and is usually evaluated by means of several questions to test recall and understanding. The <u>comprehending</u> score presented in this study is obtained by adding together the percentage of miscues which result in totally semantically

115

acceptable sentences and of those which are corrected to be completely acceptable.

Figure 14 presents the comprehending ranges and means for the three groups.

Miscues per hundred words:

Although there is a definite relationship between the number of miscues made by a reader and his level of proficiency, the data from the present study reveal that while the relationship is obvious across groups, within each group the correlation is not high. The quality of the miscues is as important as the number of miscues. Table 40 contains the miscues per hundred words and comprehending score for each subject.

Within the L group, reader 189 had the lowest number of miscues and the highest comprehending score. On the other hand, subject 192 had the second highest number of miscues per hundred words and the second highest comprehending score. The relationship is not as direct as might be expected.

Semantic word relationships:

This category deals with the relationship between the substitution miscue and the word for which it is substituted. Miscues which are dialect alternatives are not coded under this category as they are really the same word as the text word. Non-words are not coded as the meaning is unknown. The sub-categories are:

0 - Unrelated

e.g. Billy \rightarrow but

COMPREHENDING RANCE AND MEAN



Figure 14

GROUP	SUBJECT	М.Р.Н.И.	COMPREHENDING
	188	17.1	37.6
61	189	9.7	46.2
OL	190	19.3	17.5
24	191	18.4	33.9
	192	19.1	45.1
	121	8.9	40.7
	122	15.1	45.3
ZA	123	7.7	43.1
	124	6.4	61.2
	125	4.9	75.0
6н	601	1.5	94.1
	602	1.5	94.1
	603	1.5	88.2
	604	.9	100.0
	605	3.1	88.2

MISCUES PER HUNDRED WORDS / COMPREHENDING

Table 40

118

1 - Syntactic relationship only with minor semantic association.

e.g. $\underline{of} \rightarrow \underline{for}$

2 - Sequential association, the relationship between two words is sequential - they "go togehter."

e.g. He spoke carefully --- He spoke clearly

4 - Shift to generic from specific.

e.g. winter \rightarrow weather

6 - Common attribute or confusion between characters.

e.g. <u>leaping</u> \rightarrow <u>limping</u>

- 7 Antonyms.
 - e.g. summer -> winter
- 8 Semantic pair.

e.g. father \rightarrow mother

9 - Variant form of the same word, inflectional or derivational.

e.g. carefully \rightarrow careful

11 - Similar name

e.g. Whitemoon -> Whitman

12 - Synonym within the text.

e.g. On their way back to their winter home.

13 - Synonyms in other texts but not in this text.
e.g. They built one for Lightfoot, too.

14 - Some semantic association.

e.g. Poor little pet -> Poor little friend

Tables 41, 42 and 43 show the percentage of miscues falling into each sub-category for individual subjects. Figure 15 shows the group means for the various sub-categories of semantic relationship.

The low group were much higher in miscues which were completely unrelated semantically. In all of the sub-categories where the miscue

					41	Table					-, ,	
3.8	0.2	1.0	5.3	17.3	0.3	2.1	1.4	0.0	0.0	6.4	61.8	MEAN 2
1.5	0.0	1.5	4.5	15.2	0.0	4.5	3.0	0.0	0.0	3.0	66.7	
Г	0	ы	e	10	0	e	7	0	0	2	77	192
4.3	1.1	2.2	2.2	14.1	0.0	2.2	1.1	0.0	0.0	8.7	64.1	
4	Ч	7	7	13	0	7	Ч	0	0	80	59	191
5.9	0.0	1.5	2.9	11.8	1.5	1.5	0.0	0.0	0.0	5.9	69.1	
4	0	Ч	7	œ	Ч	T	0	0	0	4	47	190
0.0	0.0	0.0	11.4	25.7	0.0	0.0	2.9	0.0	0.0	14.3	45.7	
0	0	0	4	6	0	0	Ч	0	0	ŝ	16	189
7.3	0.0	0.0	7.3	19.5	0.0	2.4	0.0	0.0	0.0	0.0	63.4	
e	0	0	e	œ	0	1	0	0	0	0	26	188
ASSOCIATION ASSOCIATION	OLHEN CONLEXLS SANONAN IN	THE TEXT SYNONYM WITHIN	SIMILAR NAME	VARIANT Form	OTHER IN PAIR	MYNOTNA	COMMON COMMON	EROM SPECIFIC TO GENERIC	SEQUENTIAL SEQUENTIAL	SYNTACTIC SYNTACTIC	UNKELATED	₩ ₩ RNB1ECL

L.

SEMANTIC RELATIONSHIPS, GROUP 6L

					42	Table	·					
1.6	0.4	0.8	7.2	20.3	0 .6	1.5	0.0	0.7	0.6	8.9	57.4	MEAN X
4.0	0.0	0.0	16.0	20.0	0.0	0.0	0:0	0.0	0.0	4.0	56.0	
Ч	0	0	4	Ś	0	0	0	0	0	Ч	14	125
0.0	0.0	0.0	8.8	26.5	2.9	2.9	0.0	0.0	2.9	20.6	35.3	
0	0	0	რ	6	T	Ч	0	0	Ч	7	12	124
0.0	0.0	0.0	2.8	16.7	0.0	2.8	0.0	0.0	0.0	11.1	66.7	
0	0	0	Ч	9	0	ч	0	0	0	4	24	123
1.8	1.8	1.8	3.5	19.3	0.0	1.8	0.0	3.5	0.0	1.8	64.9	
Ч	Ч	Ч	7	11	0	Г	0	7	0	Ч	37	122
2.4	0.0	2.4	4.8	0.01	0.0	0.0	0.0	0.0	0.0	7.1	64.3	
Ч	0	п	, 6	89	0	0	0	0	0	ñ	27	121
ASSOCIATION SOME	OTHER CONTEXTS SYNONYM IN	LHE LEXL SINONIM MILHIN	SIMILAR SIMILAR	VARIANT KAGA	PAIR Other In	MYNOTNA	ATTRIBUTE COMMON	EROM SPECIFIC TO GENERIC	SEQUENTIAL NOITAI JOSSA	SYNTACTIC GIH2NOITAJJA	UNRELATED	≫ ≉ RABJECL

					43	Table						
14	0.0	10.3	0.6	22.1	0.0	0.0	1.0	0.0	0.0	14.7	29.1	MEAN %
0.0	0.0	4.8	4.8	23.8	0.0	0.0	4.8	0.0	0.0	33.3	28.6	
0	0	1	I	Ŷ	0	0	1	0	0	7	9	605
20.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	
ы	0	0	7	0	0	0	0	0	0	Ч	Ч	604
50.0	0.0	16.7	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	16.7	
e	0	Ч	0	Ч	0	0	0	0	0	0	Ч	603
0.0	0.0	20.0	0.0	40.0	0.0	0.0	0.0.	0.0	0.0	0.0	40.0	
0	0	Ч	0	7	0	0	0	0	0	0	7	602
0.0	0.0	10.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	20.0	40.0	
0	0	IJ	0	e	0	0	0	0	0	2	4	601
ASSOCIATION SOME	OTHER CONTEXTS SYNONYM IN	LHE LEXL SKNONKW MILHIN	SIMILAR AMANE	TNAIAAV MAOT	PAIR PAIR	MYNOTNA	COMMON ATTRIBUTE	FROM SPECIFIC To generic	SEQUENTIAL ASSOCIATION	SYNTACTIC SINSHIT	UNRELATED	≫ ≉ SNBJECL

SEMANTIC RELATIONSHIPS, GROUP 6H





showed some relationship to the next item, the H group is highest, followed by the A group.

An examination of the miscues coded in this category supports the reading model which puts acquisition of meaning before oral output.

e.g. Bennie: On their way back to their winter home...

In order for Bennie to say <u>house</u> he must first have extracted the meaning of <u>home</u>.

The data show many such examples:

 $\frac{\text{cabin} \rightarrow \text{cottage}}{\text{cabin} \rightarrow \text{camp}}$ $\frac{\text{shy} \rightarrow \text{scared}}{\text{baggage} \rightarrow \text{packages}}$ $\frac{\text{winter} \rightarrow \text{weather}}{\text{caught sight of} \rightarrow \text{seen}}$

Sometimes the readers substituted words generally called <u>antonyms</u>. It is difficult to define <u>antonym</u>. If a semantic feature analysis is made of such words it is usually found that they differ in only one feature.

e.g. $\frac{\text{winter}}{\begin{pmatrix} +\text{season} \\ +\text{cold} \end{pmatrix}} \begin{bmatrix} \text{summer} \\ +\text{season} \\ \text{city} \\ \text{country} \\$



This type of substitution also shows the reader has dealt with meaning. He has merely switched one feature.

Conclusions:

- The semantic category is the most important for two major reasons:
 - (a) Reading must result in meaning or it is not reading.
 - (b) It is largely through the use of the semantic system that the visual information is processed.
- 2. The differences between the proficient readers and the weak readers are most pronounced in this category.
- 3. The average readers are progressing in this direction.

The task of the novice reader is to learn to go from deep structure to the surface, to predict from meaning the visual configuration. (Smith, F. 1971:222)

4. A comparison of comprehending and grapho-phonic data shows that the weaker readers are relying much too heavily on graphophonic information. The proficient readers are using their semantic system to predict the visual configuration. Therefore, their graphic predictions are not always entirely accurate but the meaning is preserved. The highly proficient readers are freer with syntax than the slower readers but much more faithful to meaning.

CHAPTER V: CORRECTION STRATEGY

Introduction:

Reading is a process involving sampling and predicting. The reader is able to predict due to his grammatical ability and because of the meaning symbolized by the text. There is a certain degree of redundancy in language which allows the reader or listener to sample rather than to attend to every available signal.

e.g. Those three boys were stealing cars.

There are four cues in the above sentence which indicate that the subject is plural: <u>those</u> - a plural determiner; <u>three</u> - a number more than one; <u>boys</u> - the <u>s</u> plural inflection; <u>were</u> - the plural form of the verb. It is not necessary for the reader to use all four signals. After the first one or two which he processes he is able to predict to others.

Elements of meaning present as the plot of the story evolves provide semantic redundancy.

e.g. <u>Billy Whitemoon was a Winnebago Indian</u>. As the story unfolds the author is able to say, "<u>The Winnebagos</u> feasted..." The reader knows the Winnebagos are Indians.

Correction data:

Most readers are successful in their predictions most of the time. Even Leroy who made 19.3 miscues per hundred words is successful with 80% of his reading. The more proficient the reader, the better his predictions will be.
If any of the reader's predictions are demonstrated to be incorrect by further reading, he can regress for additional cues and correct his original response. All readers in the study did this.

e.g. Bennie: Soon he returned with two straight sticks and strong some string.

In this case Bennie's grammatical ability enabled him to see that his prediction of <u>strong</u> after <u>some</u> was faulty as the sentence termination followed. He had predicted <u>strong</u> on the basis of the previous quantifier - adjective - noun structure <u>two straight sticks</u>, but when he encountered the period he regressed and corrected.

e.g. Bennie: <u>One spring day Billy was walking through the woods</u>. In this case, Bennie's miscue was perfectly grammatical. He substituted a present participle for a present participle and did nothing to change the syntax. However, semantically, <u>talking through the woods</u>, while possible, is rather unlikely. Bennie's semantic sense caused him to go and pick up the cues more accurately and correct. The fact that he did not have to orally finish the sentence before discovering his miscue indicates how far ahead Bennie was processing.

Tables 44, 45 and 46 are tables of the percentages of miscues corrected by the subjects in the three groups.

Column one shows the percentage of miscues left without any attempt at correction. Column two shows the percentage of successful corrections by each subject. In column three are the percentages of miscues in which the initial response of the reader was correct but the reader abandoned his correct response in favor of an incorrect one. Column four gives the percentage of miscues on which an unsuccessful attempt at correction was made.

PERCENT OF MISCUES CORRECTED

GROUP 6L

SUBJECT ** #	UNCORRECTED	CORRECTED	ABANDONS CORRECT	UNSUCCESSFUL
188	76	11	0	6
	81.7	11.8	0.0	6.5
189	46	6	0	0
	88.5	11.5	0.0	0.0
190	94	9	1	16
	78.3	7.5	8 0	113.3
191	88	21	0	6
	76.5	18.3	0.0	5.2
192	99	9	0	5
	87.6	8.0	0.0	4.4
Mean	80.6	11.2	0.2	6.2
	82.52	11.42	0.16	5.88

PERCENT OF MISCUES CORRECTED

GROUP 2A

SUBJECT % #	UNCORRECTED	CORRECTED	ABANDONS CORRECT	UNSUCCESSFUL CORRECTIONS
121	37	9	1	8
	67.3	16.4	1.8	14.5
122	46	22	1	6
	61.3	29.3	1.3	8.0
123	34	8	0	8
	68.0	16.0	0.0	16.0
124	32	13	1	3
	65.3	26.5	2.0	6.1
125	34	12	0	2
	70.8	25.0	0.0	4.2
Mean	36.6	12.8	.6	5.4
	66.54	22.64	1.02	9.76

PERCENT OF MISCUES CORRECTED

GROUP 6H

SUBJECT ** #	UNCORRECTED	CORRECTED	ABANDONS CORRECT	UNSUCCESSFUL CORRECTIONS
601	13	4	0	0
	76.5	23.5	0.0	0.0
602	14	2	1	0
	82.4	11.8	5.9	0.0
603	14	3	0	0
	82.4	17.6	0.0	0.0
604	5	5	0	0
	50 D	50.0	0.0	0.0
605	31	3	0	0
	91.2	8.8	0.0	0.0
Mean	15.4	3.4	.2	0
	78.5	22.34	1.2	0.0

The data reveal:

- 1. All subjects made corrections.
- The range of corrections for the high group is larger but the lowest percentage of corrections in this group almost matches the lowest percentage for the low group. See Figure 16.
- 3. The H group corrected an average of 22.34% of miscues, the A group 22.64% and the L group 11.42%. The higher ability readers are using correction strategy more frequently than the weaker readers.
- 4. The percentages of uncorrected miscues are quite similar for the high and low groups, 75.5% and 82.5%, respectively, while the 2A group had 66.54% uncorrected. The 2A group made more attempts at correction than the other two groups.
- 5. The greatest difference is in percentage of unsuccessful attempts at correction. While all corrections by the H group were successful, an average of 6% of the L group's miscues were unsuccessfully corrected and 9.7% of the 2A group's. Since the 2A group made many more correction attempts than the 6L group it is natural that they would make more unsuccessful attempts as well as more successful attempts. The material was so simple for the H group that the figures for that group have less meaning, at any rate they reveal the overwhelming success of those highly proficient readers in dealing with correction.
- 6. The students seldom corrected what was already correct as is shown by the abandons correct row. This means that they knew when to use correction strategy.

PERCENT OF CORRECTIONS RANGES AND MEANS



Figure 16

Correction and acceptability:

However, investigating numbers or percentages of corrections is not sufficient. As reading becomes more proficient, more miscues are fully acceptable and the percent requiring correction is reduced. A more interesting view of correction strategy investigates the types of miscues which are corrected. A proficient reader will not correct miscues which are grammatically acceptable and which do not change meaning. A miscue which disrupts either the grammar or the meaning will be corrected. Tables 47 and 48 indicate these relationships.

There are five categories:

- 0 Unacceptable
- 1 Acceptable with prior
- 2 Acceptable with after
- 3 Acceptable within the sentence only
- 4 Totally acceptable

Column one indicates that for the 6L group 74.3% of the miscues which resulted in syntactically unacceptable sentences were left uncorrected. The 2A group left 40.0% of grammatically unacceptable sentences uncorrected while the 6H group left only 25% of miscues of this type uncorrected.

Column two shows the percentages of various types of structures which were corrected.

Figures 17 and 18 present the correction and uncorrection data graphically. The above tables and graphs indicate:

 For all groups, fewer semantically unacceptable sentences were corrected and more left uncorrected than syntactically unacceptable structures. It appears that readers' grammatical equilibrium is more easily upset than is their meaning PERCENT OF CORRECTIONS FOR SYNTACTIC ACCEPTABILITY

GROUPS		UNCORRECTED	CORRECTED	ABANDONS CORRECT	UNSUCCESSFUL
	UNACCEPTABLE	74.3	18.9	0.7	6.1
	ACCEPTABLE WITH PRIOR	73.7	15.8	0.0	10.5
6L	ACCEPTABLE WITH AFTER	88.2	9.8	0.0	2.0
	ACCEPTABLE IN Sentence only	0.0	0.0	0.0	0.0
	ACCEPTABLE IN PASSAGE	86.0	8.1	0.0	5.9
	UNACCEPTABLE	40.0	34.3	2.9	22.9
	ACCEPTABLE WITH PRIOR	54.4	31.6	0.0	14.0
2A	ACCEPTABLE WITH AFTER	63.0	25.9	3.7	7.4
	ACCEPTABLE IN SENTENCE ONLY	66.7	33.3	0.0	0.0
	ACCEPTABLE IN PASSAGE	76.6	16.9	0.6	5.8
	UNACCEPTABLE	25.0	75.0	0.0	0.0
	ACCEPTABLE WITH PRIOR	42.9	57.1	0.0	0.0
6н	ACCEPTABLE WITH AFTER	0.0	0.0	0.0	0.0
	ACCEPTABLE IN SENTENCE ONLY	0.0	0.0	0.0	0.0
	ACCEPTABLE IN PASSAGE	90.9	7.8	1.3	0.0

PERCENT OF CORRECTIONS FOR SEMANTIC ACCEPTABILITY

GROUP		UNCORRECTED	CORRECTED	ABANDONS CORRECT	UNSUCCESSFUL CORRECTIONS
	UNACCEPTABLE	76.0	15.1	0.4	8.4
	ACCEPTABLE WITH PRIOR	77.1	15.7	0.0	7.2
6L	ACCEPTABLE WITH AFTER	88.0	8.0	0.0	4.0
	ACCEPTABLE IN SENTENCE ONLY	88.4	4.7	0.0	7.0
	ACCEPTABLE IN PASSAGE	88.0	9.6	0.0	2.4
	UNACCEPTABLE	57.7	19.7	1.4	21.1
	ACCEPTABLE WITH PRIOR	55.4	32.4	0.0	12.2
2A	ACCEPTABLE WITH AFTER	69.7	24.2	3.0	3.0
	ACCEPTABLE IN SENTENCE ONLY	87.0	13.0	0.0	0.0
	ACCEPTABLE IN PASSAGE	76.0	20.0	1.3	2.7
	UNACCEPTABLE	33.3	66.7	0.0	0.0
	ACCEPTABLE WITH PRIOR	42.9	57.1	0.0	0.0
6н	ACCEPTABLE WITH AFTER	0.0	0.0	0.0	0.0
	ACCEPTABLE IN SENTENCE ONLY	100	0.0	0.0	0.0
	ACCEPTABLE IN PASSAGE	91.2	7.4	1.5	0.0



UNCORRECTION AND CORRECTION FOR SYNTAX



system, therefore, they feel a stronger need to correct syntactically unacceptable miscues.

- Miscues resulting in totally unacceptable sentences and those acceptable with the prior part of the sentence only, were the miscues most frequently corrected.
- 3. The proficient readers corrected far more unacceptable miscues than the weaker readers, whereas correction on acceptable structures shows no significant difference. Correction strategy is an extremely important factor separating proficient readers from weaker readers. But correction behavior reveals a deeper underlying competence, the ability to deal with reading as language. Proficient readers process written language with the knowledge that reading must sound like language and must have meaning. When a miscue disrupts either grammar or meaning, it is likely to be corrected by good readers.

CHAPTER VI: CONCLUSIONS AND INSTRUCTIONAL IMPLICATIONS

Conclusions:

The above analysis has revealed some basic differences between proficient and weak readers as they process the same material. Proficient readers have fewer miscues per hundred words but it is not sufficient to determine quantity of miscues; quality must also be examined. In order to formulate conclusions, a graphic display (Figure 19) has been constructed which presents the previously discussed data together. A profile of the proficient reader emerges.

Graphic - When the proficient readers miscue, their substitutions bear less graphic similarity to the text item than do those of the weaker readers.

Syntactic acceptability - The miscues of the proficient readers result in a higher percentage of syntactically acceptable sentences.

Transformation - The miscues of the proficient readers involve a higher percentage of re-transformations and alternate options while retaining acceptable deep structure.

Syntactic change - The miscues of the proficient readers change syntax on a higher percentage of occasions than do those of weaker readers.

Semantic acceptability - The degree of success in retaining meaning is much higher in the proficient readers.

Semantic change - The proficient readers change meaning very little while they change syntax quite freely.







Figure 19 (cont'd.)

COMPOSITE GRAPH OF DATA PART 2



COMPOSITE GRAPH OF DATA PART 3





Intonation - The number of miscues involving intonation is not significant.

Bound morpheme level - Most differences at the bound morpheme level involve the substitution of alternate inflections due to dialect and as such are not serious.

Word level - The proficient readers make fewer substitutions but a higher percentage of omissions, insertions and reversals. This is directly related to their freer use of optional transformations.

Non-words - The proficient readers substitute fewer non-words, reflecting their concern with meaning and their conceptual experience.

Phrase change - The proficient readers make changes at the phrase level with a larger percentage of their miscues than do the other groups.

Clause change - As with phrase change, this category is higher for the proficient readers, but the difference between groups is not so great. This category involves deep structure to a greater extent, and a larger percentage of the proficient readers' miscues are at the surface level.

Corrections - The proficient readers are making much better use of correction strategy. They know which structures require correction and are usually successful in making that correction.

Semantic word relationships - The word level substitutions of the proficient readers show a much higher relationship to the text than do those of the weaker readers.

Implications of the study:

The data suggest an instructional model directed toward meaning rather than the processing of visual information. The weak readers are over-using grapho-phonic skills to the detriment of meaning.

In the category of syntactic acceptability (p. 47) the largest percentage of miscues for all groups fell in the <u>totally acceptable</u> category, which indicates that even the weakest readers are making some use of their grammatical ability, however, they are not nearly so effective as the proficient readers. All speakers have a welldeveloped grammar but some students are more successful in applying this knowledge to reading. An over-emphasis on phonics and on identifying words to the neglect of larger syntactic units has likely contributed to their lack of awareness that reading must sound like language and must have meaning.

The second highest percentage of miscues in the syntactic acceptability category was in acceptable with prior for the more proficient groups but in totally unacceptable for the low group. Acceptable with prior miscues occur with prediction; the reader predicts a word on the basis of the previous structure. Since the successful readers make predictions often, this strategy should be encouraged in the weaker readers. They should be encouraged to guess or predict in terms of grammar and meaning when they encounter an unknown word. Traditional "word-attack" training provides only one mode of operation - "soundingout." In order to encourage prediction, the high premium on accuracy should be abandoned, providing a low threat situation for readers. A high-threat situation forces readers to wait for help from authority or peers or to omit unfamiliar words in fear of being wrong. An atmosphere which encourages guessing will enable grammatical abilities to operate. The data show that most non-words - guesses - retain the grammatical function of the expected response. While non-words do not provide meaning, their use is an improvement over omissions.

e.g. ER: He skated on the river-ice.

OR (1): He(skated) on the river-ice.

OR (2): He \$skatted on the river-ice.

OR (1) results in a completely unacceptable sentence whereas OR (2) results in meaning loss but retains grammatical acceptability and the grammatical function of the verb. If the student is able to retain the grammatical flow, he is well on the way to effective reading as the response at least sounds like language.

Most instructional programs discourage or actually forbid correction, which is termed "regression," a highly negatively loaded term. Effective correction strategy must accompany encouragement to guess, or to predict. Prediction can be made on the basis of meaning and high frequency syntactic patterns. Freedom to guess provides a greater chance of being correct than does refusal to make an attempt but the chance of being wrong is implicit in the gamble. Being wrong is not a problem if the reader can recognize his mistake and correct it. The successful readers in the study were very proficient in their use of correction strategy. They corrected only when the miscue resulted in loss of meaning or ungrammaticality.

Many of the miscues of the weak readers were related to their inadequate conceptual framework for the given material. Reading material must present settings and experiences familiar to the student. Any improvement in material with reference to the culture of the weak readers should be in the direction of content rather than dialect.

The entire view of the nature of reading must be made clear to the slower readers. They operate on the assumption that reading is a skill which involves deciphering sounds from the graphic display - a

natural result of the skill-oriented programs they have experienced. Their attention must be re-focused toward meaning.

A profile of instruction:

The present study has provided a close-up view of the proficient reader and a comparison between that successful reader, the weak reader, and the developing reader.

Bear in mind that the purpose of the inquiry method is to help learners increase their competence as learners. It hopes to accomplish this by having students do what effective learners do. Thus, the only reasonable kind of logic or structure that can be applied in this environment is that which is modeled after the behavior of good learners. Good learners, like everyone else, are living, squirming, questioning, perceiving, fearing, loving, and languaging nervous systems, but they are good learners precisely because they believe and do certain things that less effective learners do not believe and do. And therein lies the key. (Postman and Weingartner 1971:31)

Whether it has ever been proven that it is possible to successfully teach some to do what others do naturally is not known at this point, but surely we can help them to come closer. The professional golfer, the accomplished musician, the talented cook, all these experts analyze their methods of operation and attempt to pass this successful process on to those who would learn. And so it should be with reading.

It is likely that all the readers in the present study were taught in a similar manner, yet some have been successful and others have not. But it is not possible to know how a person has learned. Did he learn because of the method or in spite of the method? Perhaps good learners subvert the system while the slower learners try desperately to do as they are told, while the information they are given leads them astray. The following is an attempt to apply the strategies of the good reader to 1) the beginning reader, 2) the older unsuccessful reader.

Beginning reading:

Reading is a complex process by which a reader reconstructs to some degree, a message encoded by a writer in graphic language. (Goodman, K. 1969:2)

Since meaning is not only the end product of reading, but also essential to efficient processing of visual information, meaning should be the focal point of an instructional program.

Reading is a language process. Written language is a symbolic code by means of which meaning is transferred from sender to receiver. Oral language is learned, not as an end in itself, but rather as a means to an end. That end is communication, the sharing of information, feelings, etc. A successful beginning reading program will focus on the communicative aspect of reading. Reading should not be "taught" as a skill, but rather, "learned" as a portal to exciting literature, sharing of experiences, and acquisition of information.

As an alternative language process, learning to read should be as natural as learning to speak. The native speaker learns his language by being exposed to a considerable amount of data from which he selects, predicts, and develops rules which allow him to be productive, to create structures which are new to him.

Now let's think about word recognition and word analysis. You probably are wondering how children are going to learn sight words and word attack skills when you are not required to pre-teach them. The pre-teaching of words is the traditional method of teaching children to read. It's as if they must be spoon-fed the vocabulary, word by word, ad infinitum.

This is not the way the children learned the language. You do realize, don't you, that they already are speaking the language, framing sentences, constructing intricate meanings, and reacting to a multiplicity of sentence sounds which were never pre-taught? Children learned the spoken language by continuous exposure to it. Learning to use the language orally is probably the greatest intellectual feat they will achieve in a lifetime, and they did it before the age of five. The frustrated mother who tells a three-yearold, "Oh, stop your arguing!" does not reason whether he has encountered this particular vocabulary before. She takes it for granted that the intonations, the emotional overtones, the sentence sounds, and the specific context will tell him what she means.

This is how language is learned. Since reading is a part of language, isn't it reasonable to assume that this is how reading can be learned? By exposing children to memorable and oral language, by letting them see the printed form of that oral language, you will find them coming to you with book in hand, saying, "I know this. This word is <u>friends</u>. I know what this says. It says, 'We are your friends.'" How much better, more insightful, to encourage a child to *discover* what he knows, rather than to tell him, "You know this word. We had it before. This word is <u>friends</u>."

(Martin 1966:9)

A good deal of listening, or receptive control, is accomplished before the young child produces language himself. As far back as 1935, teams of investigators such as Gesell and Thompson or Bühler and Hetzer reported that when children learn their first language, listening comprehension of many complex utterances is demonstrated before these children produce any intelligible speech.

In the field of second language teaching, many educators are now stressing that students should be submerged in oral data and encouraged to listen and try to comprehend. The student is not encouraged to attempt to speak until he has an uncontrollable urge to do so (Asher, 1972).

It would seem worthwhile to provide the same kind of submersion in data for beginning readers. Various means of providing the data are available.

1. Reading to children

The child learns to speak by being spoken to. He can learn to read by being read to (Pyle, 1964). The first few months of school should contain as much reading to children as they can enjoy without becoming bored. As often as possible, they should be provided with copies of the text which the teacher is reading. Reading materials are available which provide recordings of children's literature with accompanying text. The Weston Woods Collection of records and related books is an excellent example, as is the Read Along Library by Scott Foresman.

2. Singing - Children may be provided with song sheets to follow as they and the teacher sing. A program could be developed in which folk-song lyrics are projected on a screen and a "follow-the-bouncingball" technique used to help them match sound with symbol. There are many advantages to this suggestion. 1) The rhythm and rhyme of folk songs provide a pattern which will allow children to make predictions. 2) Most folk music has a definite story line so meaning is prominent. 3) There is usually a good deal of repetition to provide reinforcement. 4) The children can invent new verses, thus developing their creativity and interest. 5) Children love to sing (if this is not ruined by making it a competitive issue). The activity of reading will become associated with pleasure not pain. Children learn songs quite quickly and so will be involved as a group from the very early stages. There will be no pressure of having to read orally, individually, to be evaluated by peers and teacher. The group experience will provide a de-individualized, thus unthreatening situation. At least one hour each day should be spent in this way.

3. Labels

Printed stimuli should be abundant within the classroom. Bulletin boards, animal pens, pictures, etc., all should be accompanied by labels in full sentences. <u>I am a hamster. My name is Mr. Big</u>, etc. The labels should be changed often to maintain interest.

A miniature store could be set up with products bearing familiar labels: Crest, All, Kellogg's, etc.

4. Language experience

After a good deal of input, the children will eventually be anxious to try to produce written language. They will share experiences which the teacher can write. The students will make hypotheses about sound to spelling correspondences, etc., as they associate what they dictate with what the teacher writes. Language experience stories may then be shared with peers (Lee and Allen, 1968).

5. Literature

As early as possible, children should be encouraged to read literature. There is a wealth of good children's literature available today. "The Sounds of Language" series and the new Scott Foresman series are worthwhile collections.

Given this kind of saturation in written and oral language, most children will learn to read. Undoubtedly, some will be slower than others. Maturation always proceeds at different rates in different individuals. Some babies begin to talk before their first birthday while others are much slower. It would be alarming to see a test given at nine months of age to all babies to determine whether or not they will be "problem speakers." Those who were "would-be" problems would be separated out, their mothers told their babies are slow and the babies given special drills to promote "readiness."

Readiness is involved in learning to read but it should be the type of readiness which causes a child to spontaneously begin reading when he feels the desire.

The types of activities mentioned do not require the stratification of children into ability groups. Ability grouping exaggerates and enlarges any differences in learning ability or learning rate which may exist between children. This type of segregation can only be harmful to the self-concept of the child. Small group work is essential in order to give children plenty of opportunity to verbalize but the grouping should be random and flexible.

There is no need for formal drill in phonics. There is no doubt that readers using an alphabetic system do operate to a great extent on sound-symbol correspondences. However, the rules are so complex (see Ch. II) and abstract (Chomsky 1968:50) that it is ineffective to attempt to teach them directly. Children can formulate their own rules as they do when learning to speak (Smith 1971:226). Formal drill in phonics puts the emphasis on the analytical rather than the meaning process. Spoken language is not learned by a step-by-step sequencing of sounds but rather in the total context of meaning. The efficient readers in the present study operate with meaning and grammar to predict to the visual. An emphasis on the visual with a premium on accuracy reverses this process. In order to help children to read for meaning, we must begin with meaning, not with abstract symbol to sound relationships.

The older reader:

A beginning reading program such as the one utilized above should prevent the type of problem reader the study revealed. No doubt some children will learn more quickly than others but the mode of reading

should be the same. The second grade readers in the study, although certainly not proficient readers as yet, are moving in the direction of the proficient sixth graders. They produced more semantically and syntactically acceptable structures than the 6L group and were less concerned with accurate processing of visual information.

The standard remedial reading program has ineffective readers placed in phonics skills activities. The data reveal that phonics work is certainly not needed for the weak readers in this study. On the contrary, they are functioning too heavily with grapho-phonics and not deriving meaning. Further work in phonics can only repeat what has failed to be effective with them in previous years. They need to become aware that reading must have meaning and must sound like language.

Many students are very quickly labelled "problem readers" and problem readers they become (Rosenthal, 1968). Once assessed as problems they are given phonics drills, workbook exercises, even spelling practice in order to help their reading. But these activities are not reading. One learns to read by reading and being read to.

All of the activities suggested for beginning readers should be used with older readers. Production should be de-emphasized for a period of time and the student allowed to listen and follow in his own book. Reading to students should continue throughout all the school years. All people enjoy being read to and those students for whom reading is a difficult task will benefit greatly from the involvement with exciting literature they obtain in this way.

All readers, even the L group in the present study, have certain strengths: they all use their syntactic system effectively; they all make good use of grapho-phonic cues; they all derive some meaning from

their reading. These strengths should be pointed out to them. They need to be encouraged to make corrections where appropriate, to predict, to guess, to keep going in order that their syntax be as natural as possible. They need to be free to make hypotheses and test them; to make mistakes.

Remedial or developmental reading at the secondary level often focuses on helping students to learn to read content material from their other subjects. In order to read effectively, the reader must bring to the task a rich experiential background. The semantic system is a large contributor to the processing of the visual information and without a conceptual framework, reading becomes a very difficult operation. Add to this the poor writing style of most text-book writers and students become presented with a formidable task. Teachers in all subjects need to be made aware of this and temper their expectations of reading. Concept development should precede reading.

Meaning is both input and output in reading. Any selection will be understood only to the extent that the reader brings to it the prerequisite concepts and experiences. Even in reading to learn, the new concepts can only be slightly beyond the reader's prior attainments, and he must be able to relate the vicarious experience to real experience in order to make any use of it. (Goodman, K. 1972:159)

All reading should take place in a natural language context. Materials should be interesting and meaningful. Children should be encouraged to read a great deal and the experience should be as rewarding and free from threat as possible.

Reading, like language, "is learnt in operation not by dummy runs" (Dixon 1967:13).

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APPENDIXES

APPENDIX A

BILLY WHITEMOON

BILLY WHITEMOON

0101 Billy Whitemoon was a Winnebago Indian

0102 boy. He lived with his father and mother in a

0103 cabin near the Black River.

0104 Billy liked to take part in the work of his 0105 tribe. One of the things he liked most was 0106 cranberry picking in the fall. 0107 All the men and women and children of the 0108 tribe went to the cranberry swamp near the 0109 Winnebago lands. They would spend days 0110 picking the ripe cranberries, which they put 0111 in boxes and sent to the city. 0112 Billy liked the winter, too. It was fun to go 0113 to school. When he wasn't in school, he 0114 skated with his friends on the river ice. 0115 But when the heavy snow was gone from 0116 the Winnebago lands, Billy was very happy. 0117 He knew that spring had come.

0201 One spring day Billy was walking through 0202 the woods. He heard a little moaning cry. 0203 There in the dry, dead leaves he saw a little 0204 fawn.

0205 Billy went closer. He was surprised that the

0206 little fawn didn't run away. Billy knew that 0207 fawns were always very shy. Then he noticed 0208 that this one's leg was broken! 0209 "Poor little fawn!" said Billy. "You just

0210 wait here. I'll be back soon." 0211 Billy hurried to his cabin. Soon he returned 0212 with two straight sticks and some string. He 0213 tied the sticks to the broken leg. Then he 0214 picked up the fawn and carried it home. 0215 When his father saw the fawn, he said, 0216 "What a beauty! He will make a good pet." 0217 Billy loved all wild animals, but he loved the 0218 shy little fawn best of all. When the broken 0219 leg was better, Billy took the sticks off. Then 0220 he and the fawn would race together through 0221 the forest. Billy named his pet Lightfoot 0222 because he could run so fast.

0301 Every spring Billy helped his father cut
0302 down young trees, which his mother used in
0303 making baskets.

Mother Whitemoon made baskets the way
all Winnebago women did. She pounded the
young trees into long strings. From the strings
o307 she made beautiful baskets.
0308Some of the baskets she colored red or blue0309or orange. She made her own paints from0310the roots that Billy gathered from the0311swamps. She had taught him to know the0312kind of roots used by Winnebago Indians for0313many, many years.0314This spring Billy was delighted that the

0315 roots had made such beautiful colors. He 0316 knew that the baskets would sell well at their 0317 summer camp.

0401 When warm weather came, the Whitemoons 0402 moved to their summer camp. They packed 0403 their kettles, blankets, clothes, and other 0404 baggage into their old car. They packed Mother Whitemoon's baskets carefully. Then 0405 0406 they pushed Lightfoot into the car. 0407 When everything was loaded, they started 0408 down the highway. They drove until they 0409 found a good place to camp for the summer. 0410 Then Billy and his father built a summer 0411 house. They covered it with deer hides to 0412 keep the family dry in rainy weather. When 0413 their house was done, they built one for 0414 Lightfoot, too.

0415 Every day Mother Whitemoon would put 0416 on a bright cotton dress and pretty earrings. 0417 Then she would sit in front of the summer 0418 house and sell her baskets. She let travelers 0419 who bought them take her picture.

When summer ended, the Whitemoons
packed their belongings again. Then they
crowded into the car with Lightfoot, who was
much bigger now.

0505 On their way back to their winter home, 0506 they stopped for a week to take part in the 0507 Winnebago Dance Time. At this season of the 0508 year all the Winnebago Indians camped near 0509 the river. They built campfires and danced 0510 every day.

0511 Billy feasted on roast corn and baked fish.
0512 He listened to the stories and the songs of
0513 their tribe.

0514 Billy wished he could sing some of the songs 0515 he was always making up. But he was 0516 too shy to sing in front of people. Only 0517 Lightfoot, his pet fawn, knew the songs that 0518 Billy could sing.

0601 After the Dance Time was over, all the 0602 tribe returned to their winter cabins. Now it 0603 was the season for deer hunting. White men 0604 from the cities came to hunt in the forests 0605 near the Winnebago land. 0606 Billy was glad that there was a law saying 0607 that no white man could hunt on Winnebago land. Lightfoot was so much bigger now that 0608 0609 the hunters would surely shoot him. 0610 One afternoon Billy was walking through 0611 the forest on his way home from school. He 0612 heard a rustle in the leaves. A short way ahead 0613 of him he saw Lightfoot coming to meet him! 0614 The sight of his pet frightened Billy, for 0615 Lightfoot was off Winnebago land! If a 0616 hunter should see him, he would have the 0617 right to shoot. Billy looked around quickly 0618 to see if there was any danger. He heard the 0619 rustling of leaves! 0620 His eyes caught sight of a red jacket. 0621 There was a hunter looking at Lightfoot. The 0622 man lifted his gun to his shoulder.

0701 Billy shook with fear. Then in a flash he 0702 stepped between the hunter and Lightfoot.

0703	"Get out of the way, boy!" shouted the
0704	hunter angrily. "You might get hit!"
0705	"Oh, please!" Billy cried. "Don't shoot that
0706	deer! He's mine! He's mine!"
0707	"How do I know he is your deer?" the
0708	hunter asked. "All deer look alike."
0709	"Oh, but he is mine!" Billy insisted.
0710	"You can't prove it!" the hunter said. He
0711	was still angry.
0712	Billy knew how he could prove Lightfoot
0713	was his. If he sang, Lightfoot would come to
0714	him. No one had ever heard Billy's songs.
0715	The man might laugh at him, but he had to
0716	save Lightfoot.
071 7	Billy smiled shyly. Then he began to sing.
0718	"Come, Lightfoot, come here, come here.
071 9	Come to me, my little deer!"
0720	There was a rustling sound. Lightfoot came
0721	leaping through the woods toward Billy. He
0722	put his soft nose on his master's shoulder.

Wou win!" said the hunter. "You have
proved the deer does belong to you. I liked
your song, too. You sing very well."
Billy was so pleased by the hunter's words

0805 that he told his mother and father what had
0806 happened. Then he sang for them, too.
0807 Next year when the Winnebago Dance
0808 Time came, Billy sang for all the tribe. He
0809 was no longer shy as he sang his songs about
0810 the big world and the blue sky. He sang of
0811 the stars and the moon, and the brook that
0812 flows over the stones in the forest. He sang
0813 of the seasons of the year, and of Lightfoot,
0814 his wonderful pet deer.
0815 He sang so well that the tribe called him

0816 "Billy Whitemoon, Maker of Beautiful Songs."

Along Friendly Roads - 3-2

APPENDIX B

GOODMAN TAXONOMY OF READING MISCUES - SHORT FORM

READING MISCUE RESEARCH - CODING SHEET

46 Correction CRECT 0 no 1 yes 2 abandons correct 9 unsuccessful 47 Dialect Involved DILCT 0 no 1 yes 2 idiolect (M.A.T.) 3 super correct (M.A.T.) 4 secondary involvement in miscue (sub-studies) 5 foreign language influence (M.A.T.) 9 doubtful 48* Graphic GRAPH blank 0 no similarity 1 letters in common 2 any key letter in common or the middle portions similar 3 end Add 1 for configuration (0-6)4 beginning 5 beginning, middle 6 beginning, end/middle, end 7 beginning, middle, end or reversals of three letters or more

^{*} Category involves use of both blanks and zeros.

- 8 single grapheme difference or reversals of two letters or all but punctuation
- 9 homographs
- 49* Phonemic PHØNM

blank

- 0 no similarity
- 1 some common sounds
- 2 single key elements in common
- 3 final portions in common
- 4 common beginning
- 5 common beginning and middle portions
- 6 common beginning, end/middle, end
- 7 beginning, middle and end similar
- 8 differ in single vowel or consonant or morphophonemic or intonation shift (including schwa)
- 9 homophones
- 50 Allologs ALLØG
 - 0 no
 - 1 contraction/full
 - 2 full/contraction
 - 3 contraction not rep. in print
 - 4 long and short forms or syllable deletion/insertion
 - 5 shift to idiomatic form
 - 6 shift from idiomatic form
 - 7 misarticulation

^{*} Category involves use of both blanks and zeros.

51	Syntactic Acceptability SYNAC
	0 no
	l only with prior
	2 only with after
	3 in sentence
	4 in total passage
52	Semantic Acceptability SEMAC (This category cannot be scored higher than 51.)
	0 no
	l only with prior
	2 only with after
	3 in sentence
	4 in total passage
53*	Transformation TRANS
	0 no transformation
	1 through different deep structures
	<pre>2 same deep structure - through alternate or compulsory rules</pre>
	3 alternate options
	4 deep structure lost or garbled (51 marked 0)
	9 doubtful
54 *	Syntax SYNTX (mark when 51 is 3 or 4) (blank when 51 is 0, 1, 2)
	blank
	0 unrelated
	l single element in common
	2 key element in common

^{*} Category involves use of both blanks and zeros.

	3	major change in sentence pattern
	4	minor change in sentence pattern
	5	a major change within structure of phrase
	6	minor change within structure of phrase
	7	change in person, tense or number
	8	change in choice of function word or other minor shift
	9	unchanged
55*	Sen	mantic SMANT (mark when 52 is 3 or 4) (blank when 52 is 0, 1, 2)
	bla	ank
	0	completely anomalous to rest of story
	1	change or loss affecting plot in basic sense or creates major anomalies
	2	change or loss involving key aspects or seriously interfering with sub-plots
	3	change or loss resulting in inconsistency of major incident, major character or major aspect of sequence
	4	change or loss resulting in inconsistency of minor incident, minor character or minor aspect of sequence
	5	change or loss of aspect which is significant but does not create inconsistencies
	6	change or loss of unimportant detail
	7	change in person, tense, number, comparative, etc., which is noncritical
	8	slight change in connotation/or similar name which doesn't confuse cast
	9	no change
56	Int	tonation INTØN
	0	no
	1	within words

*Category involves use of both blanks and zeros.

	2	between words within	one	e phrase structure
	3	relative to phrase or	: c]	ause structure of the sentence
	4	end of phrase or sent	enc	e (terminal)
	5	conjunction substitut	ed	for terminal or vice versa
	6	intonation involving	diı	cect quotes
57	Sub	morphemic Level S	UBN	ſR
	0	no		
	1	substitution		
	2	insertion		
	3	omission		
	4	reversal		
	5	multiple minor variat	ior	18
58-59	Bou	and and Combined Morph	neme	e BNDMR
	0	no	0	no
	1	substitution	1	inflectional suffix
	2	insertion	2	non-inflected form
	3	omission	3	contractional suffix
	4	reversal	4	derivational suffix
			5	prefix
			6	miscue across affix types
			7	miscue involving base

60-61 Word and Free Morpheme WØRDL

- 0 no 0 no
- 1 substitution 1 multiple morpheme word (O.R.) for multiple morpheme word (E.R.)
- 2 insertion 2 single morpheme word (O.R.) for
- 3 omission single morpheme word (E.R.)
- 4 reversal 3 multiple morpheme word (0.R.) for single morpheme word (E.R.)
 - 4 single morpheme word (0.R.) for multiple morpheme word (E.R.)
 - 5 word or free morpheme in longer word
 - 6 word in compound
 - 7 non-word
 - 8 dialect alternative

62	Phrase PHRSL
	0 no
	1 substitution
	2 insertion
	3 omission
	4 reversal
63	Clause CLAUS
	0 no
	1 substitution
	2 insertion
	3 omission
	4 reversal without change in dependency
	5 clause dependency is altered within sentence
	6 clause dependency is altered across sentences

65-69*	Gramm	atical	Category and	Sur	face Structure	of	O.R. GFØBR
	blank	(65-60 matica	6 Gram - al Category)	(6 ma	7-68 Gram - tical Filler)	(6 Fu	9 Grammatical nction)
	1. N	oun		0		0	
				1	common	1	subject
				2	proper	2	direct object
				3	pronoun	3	indirect object
				4	verb derived	4	appositive
				5	phrasal unit	5	address
				6	word as word name	6	noun in adverb- ial phrase or
				7	quantifiers		tional phrase
				8	adjective in noun position	7	subject comple- ment
						8	object comple- ment
						9	intensifica- tion
	2. V	erb		0		0	
				1	be forms	1	active
				2	transitive	2	passive
				3	intransitive	3	imperative
				4	infinitive	4	subjunctive
				5	pro-verbs		
	3. N	oun Moo	lifier	0		0	
				1	adjective	1	subject comple-
				2	noun adjunct	2	embedded
				3	verb derived	- ٦	object comple-
				4	possessive noun	5	ment

3.	Noun Modifier (cont'd.)	5	possessive pronoun		
		6	titles		
		7	adverbial		
		8	ordinal number		
		9	phrasal unit		
4.	Verb Modifier	0		0	
		1	pro-adverb	1	place
		2	adverb	2	manner
		3	noun form	3	time
				4	reason
				5	other
5.	Function Word	0			
		1	noun marker		
		2	verb marker		
		3	verb particle		
		4	question marke	er	
		5	clause marker		
		6	phrase marker		
		7	intensifier		
		8	conjunction		
		9	negative		
		10	quantifier		
		11	other		
		12	adverb particl	e	

6.	Indeterminate	0			
		1	interjection		
		2	words out of syntactic cont	ext	
		3	defies classif tion/ambiguous	ica	-
		4	greetings		
7.	Contractions		(left)		(right)
		1	pronoun	1	verb marker
		2	verb marker	2	be
		3	be	3	trans verb
		4	let		(nave)
		5	question	4	negative
		J	marker/ clause marker	5	pronoun (us)
		6	it/there		
		7	adverb		
		8	noun		
		9	transitive verb (have)		

When the E.R. and the O.R. are the same grammatical function, 65-69 can be coded 99999.

70-71* Semantic Word Relationships SMWRD

blank

- 0 unrelated
- 1 primarily syntactic relationship with minor semantic association
- 2 strong sequential semantic association to prior/subsequent word or to word itself
- 3 association to homophone or homograph

^{*} Category involves use of both blanks and zeros.

- 4 shift to generic from specific
- 5 shift to specific from generic
- 6 common attribute or confusion between characters
- 7 antonym
- 8 other in a pair
- 9 variant form of same word: inflected or derivational
- 10 slight difference in connotation
- 11 similar name
- 12 synonym within the text
- 13 synonym in other contexts
- 14 some semantic association between E.R. and O.R.

APPENDIX C

STANFORD DIAGNOSTIC READING TEST

STANFORD DIAGNOSTIC READING TEST*

TEST 1: READING COMPREHENSION							
Directions: Find the one word that belongs in each space and make a cross in the circle in front of that word. Do not write in the spaces.							
Samples							
The mouse ran away when it saw the A_{-} . The mouse was B_{-} .							
$\begin{array}{cccc} A & \bigotimes & cat & \bigcirc & hole & \bigcirc & cheese & \bigcirc & table \\ B & \bigcirc & hungry & & happy & \bigcirc & afraid & \bigcirc & glad \end{array}$							
The cactus is <u>C</u> that grows in the desert. It can survive with almost no <u>D</u> .							
C O a plant O a hill O an animal O an insect D O sun O heat O water O air							
TEST 2: VOCABULARY							
Directions: Make a cross in the circle beside the word which best completes the sentence that the teacher reads.							
Samples							
AOfish χ birdOairplaneBOnapObiteOpicture							
TEST 3: SYLLABICATION							
Directions: Look at the first word in each line. Find the first syllable of that word. Then find it at the right and make a cross in the circle in front of the syllable.							
Samples							
AwinterOwinOwintBdifferentOdiffOdiffer							

* Harcourt, Brace & World, Inc., New York, 1966. TEST 4: SOUND DISCRIMINATION

Directions: One of the last three words in each line has the same sound as the sound which is underlined in the first word of the line. Make a cross in the circle beside the word that has the same sound.

Samples

A	<u>go</u>	\bigcirc am	🔇 no	🔿 do
В	d <u>ay</u>	Oby	O dog	O ate

TEST 5: BLENDING

Directions: Make crosses as your teacher tells you.

Samples

A	\otimes	d	0	а	Ø	8
	0	m	\otimes	0	0	f
B	0	or	0	ee	0	se
	0	ch	0	ow	0	nt
С	0	on	0	tro	0	den
	\circ	in	0	com	0	duce

TEST 6: RATE OF READING

Directions: This is a test to see how fast and how accurately you can read. Make a cross in the circle next to the word in every third line that best fits in with the sentence.

1 Many years ago people thought that when

2 North America was discovered by

3 O Columbus O Edison O Washington

4 there were wild horses here. We now know

5 that this was not true. The Indians had

6 O always O often O never

7 seen horses before the Spaniards arrived. The 8 horses they later tamed were descendants of O boats O horses O wagons 9 10 that had escaped from the Spaniards. Soon herds of wild horses were roaming the 11 12 () plains () streets () seas. 13 Those brought by the Spaniards, however, 14 were not the first to exist on the North O African O American O European 15 continent. Some 50 million years ago, North 16 America's swampy forests were home to the 17 18 🔿 last 🔿 earliest 🔿 biggest horses, called "dawn horses," which were 19 20 no larger than a small dog, or perhaps a O fox O bear O cow. 21