R E P O R T R E S U M E S

ED 011 482 RE 000 029

A LINGUISTIC STUDY OF CUES AND MISCUES IN READING.

BY- GOODMAN, KENNETH S.

PUB DATE OCT 65

EDRS PRICE MF-$0.09 HC-$0.28 7P.

DESCRIPTORS- *WORD RECOGNITION, *READING SKILLS, *LINGUISTICS, *READING DEVELOPMENT, READING RESEARCH, GRADE 1, GRADE 2, GRADE 3, EYE REGRESSIONS, INDIVIDUAL TESTS, READING ACHIEVEMENT, ORAL READING, CONTEXT CLUES, VOCABULARY, STRUCTURAL ANALYSIS, DETROIT

A DESCRIPTIVE STUDY OF THE ORAL READING OF FIRST-, SECOND-, AND THIRD-GRADE CHILDREN IS REPORTED. THE STUDY TREATS READING AS A PSYCHOLINGUISTIC PROCESS WHICH IS CUED OR MISCUED DURING THE CHILD'S INTERACTION WITH WRITTEN LANGUAGE. THE SUBJECTS WERE 100 CHILDREN ATTENDING THE SAME SCHOOL IN A DETROIT INDUSTRIAL SUBURB. EVERY SECOND CHILD ON AN ALPHABETICAL LIST OF ALL THE CHILDREN WAS INCLUDED IN THE STUDY. EACH SUBJECT WAS TESTED INDIVIDUALLY WITH A WORDLIST FROM A STORY ON HIS GRADE LEVEL. HE WAS THEN ASKED TO READ ORALLY THE STORY ON WHICH HIS WORDLIST WAS BASED. FOLLOWING THIS, THE CHILD RETOLD THE STORY AS BEST HE COULD. BOTH THE READING AND THE RETELLING WERE TAPED AND STUDIED. THE CHILDREN IN THE STUDY WERE ABLE TO READ MANY WORDS IN CONTEXT WHICH THEY COULD NOT READ FROM LISTS. CHILDREN IN SUCCESSIVE GRADES WERE INCREASINGLY EFFICIENT IN USING CUE SYSTEMS IN OTHER WAYS. SUBSTITUTIONS AND REGRESSIONS IN A CHILD'S ORAL READING ARE DISCUSSED. FIVE IMPLICATIONS FOR THE TEACHING OF READING ARE PRESENTED. A PARTIAL LIST OF CUE SYSTEMS USED IN READING IS GIVEN. THE TYPES OF READING ERRORS ARE SUMMARIZED IN FIVE TABLES. THIS ARTICLE IS A REPRINT FROM "ELEMENTARY ENGLISH," VOLUME 42, OCTOBER 1965. (RH)

Reprinted from *ELEMENTARY ENGLISH*, October, 1965, 42, 639-643.

KENNETH S. GOODMAN
U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

A Linguistic Study of Cues and Miscues in Reading

This is a report of the conclusions to date of a descriptive study of the oral reading of first-, second-, and third-grade children. It is a study in applied linguistics since linguistic knowledge and insights into language and language learning were used.

Assumptions

In this study, reading has been defined as the active reconstruction of a message from written language. Reading must involve some level of comprehension. Nothing short of this comprehension is reading. I have assumed that all reading behavior is caused. It is cued or miscued during the child's interaction with written language. Research on reading must begin at this point of interaction. Reading is a psycholinguistic process. Linguistic science has identified the cue systems within language. The child learning to read his native language has already internalized these cue systems to the point where he is responding to them without being consciously aware of the process. To understand how children learn to read, we must learn how the individual experiences and abilities of children affect their ability to use language cues. We must also become aware of the differences and similarities between understanding oral language which uses sounds as symbol-units and written language which depends on graphic symbols.

Dr. Goodman is an Assistant Professor of Elementary Education at Wayne State University, Detroit. This article is based on a paper delivered at the American Educational Research Association, Chicago, February 21, 1964.

Cue Systems in Reading

Here is a partial list of the systems operating to cue and miscue the reader as he interacts with written material. Within words there are:

- Letter-sound relationships
- Shape (or word configuration)
- Known "little words" in bigger words
- Whole known words
- Recurrent spelling patterns.

In the flow of language there are:

- Patterns of words (or function order)
- Inflection and inflectional agreement (examples: The boy runs. The boys run.)
- Function words such as noun markers (the, a, that, one, *etc.*)
- Intonation (which is poorly represented in writing by punctuation)
- The referential meaning of prior and subsequent language elements and whole utterances.

Cues external to language and the reader include:

- Pictures
- Prompting by teacher or peers
- Concrete objects
- Skill charts.

Cues within the reader include:

- His language facility with the dialect of his sub-culture
- His idiolect (his own personal version of the language)
- His experiential background (the reader responds to cues in terms of his own real or vicarious experiences)
- His conceptual background and ability (a reader can't read what he can't understand)

Those reading attack skills and learning strategies he has acquired or been taught.

Procedures

The subjects of this study were 100 children in grades 1, 2, and 3 who attend the same school in an industrial suburb of Detroit. Every second child on an alphabetic list of all children in these grades was included. There were an equal number of boys and girls from each room.

For reading materials, a sequence of stories was selected from a reading series not used in the school. With the publisher's permission the stories were dittoed on work sheets. A word list from each story was also duplicated.

An assistant called each subject individually out of the classroom. The subject was given a word list for a story at about his grade level. If the child missed many words, he was given a list for an earlier story. If he missed few or none he was given a more advanced story. Each child eventually had a word list of comparable difficulty. The number of words which each child missed on the lists, then, was a controlled variable.

Next the child was asked to read orally from the book the story on which his word list was based. The assistant noted all the child's oral reading behavior on the work sheets as the child read. The assistant refrained from any behavior which might cue the reader. Finally, each subject was to close his book and retell the story as best he could. He was not given advance notice that he would be asked to do this. The reading and retelling of the story was taped. Comparison between the structure of the language in the book and in the retold stories is underway utilizing the system of the Loban and Strickland studies.[1] It is not complete and will not be reported here.

Words in Lists and in Stories

One concern of the research was the relative ability of children to recognize words in the lists and read the words in the stories. The expectation was that children would read many words in stories which they could not recognize in lists. I reasoned that, in lists, children had only cues *within* printed words while in stories they had the additional cues in the flow of language. I was not disappointed.

Table I

Average Words Missed in List and in Story

	List	*Also Missed in Story*		
	Average	*Average*	*Percent*	*Ratio*
Grade 1	9.5	3.4	38%	2.8:1
Grade 2	20.1	5.1	25%	3.9:1
Grade 3	18.8	3.4	18%	5.5:1

Table II

Ability to Read Words in Context Which Were Missed on List

	Less Than ½	*More Than ½*	*More Than ⅔*	*More Than ¾*	*More Than ⅘*	*N*
Grade 1	11%	89%*	69%	49%	26%	35
Grade 2	3%	97%	81%	66%	50%	32
Grade 3	6%	94%	91%	76%	67%	33

*Cumulative percents of subjects

[1]Walter Loban, *The Language of Elementary School Children*. Champaign; National Council of Teachers of English, 1963 and Ruth Strickland, *The Language of Elementary School Children*, Bulletin of The School of Education, Indiana University, 38, July, 1962.

As is shown in Table I, the children in this study were able to read many words in context which they couldn't read from lists. Average first graders could read almost two out of three words in the story which they missed on the list. The average second grader missed only one-fourth of the words in the story which he failed to recognize on the list. Third graders were able to get, in the stories, all but 18 percent of the words which they did not know in the list.

As Table II shows, except for a small group of first graders and a very few second and third graders, all the children in this study could read correctly in the story at least half of the words that they could not recognize on the lists. Sixty-nine percent of first-grade children could "get" two-thirds or more of their list errors right in reading the story. Sixty-six percent of the second graders could read three-fourths or more of their errors in the story. The comparable group of third graders could get better than four out of five. The children in successive grades in this study were increasingly efficient in using cue systems outside of words.

Table III

Total Errors and Substitution Errors on Lists

	List Errors	*Included Substitutions*		
	Average	*Average*	*Percent*	*Ratio*
Grade 1	9.5	4.9	52%	1.9:1
Grade 2	20.1	11.5	57%	1.7:1
Grade 3	18.1	14.3	79%	1.3:1

At the same time, as Table III shows, children in successive grades were making greater attempts to use word attack skills, here defined as responses to *cue systems within words*. About half of the listed errors of first graders were omissions. The children did not attempt to figure the words out by using any available cues. Second-grade children showed an increased tendency to try to "get" the word. This is shown by the somewhat higher percent of substitutions among the list errors of second-grade children. Third graders showed a pronounced increase in the percent of substitutions among their list errors. Children in successive grades used work attack skills with increased frequency though not necessarily with increased efficiency.

Table IV

One-Time Substitutions for Known Words in Stories

	Average Substitutions	*Average Lines Read*	*Substitutions Per Line Read*
Grade 1	3.7	50.2	.074
Grade 2	14.9	126.2	.118
Grade 3	16.9	118.7	.142

There was no instance of a child getting a word right on the list but missing it consistently in the story. But often children made an incorrect substitution in the reading of the story in individual occurrences of known words. As Table IV indicates, second and third graders made more than twice as many one-time substitutions per line read as first graders. Third graders made more substitutions per line than second graders. Three possible causes of these one-time substitutions may be (1) overuse of cues within words to the exclusion of other cues, (2) miscuing by book language which differs from the language as the child knows it, and (3) ineffective use of language cues.

Regressions in Reading

This study also was concerned with regressions in reading, that is repeating one or more words. No statistics are needed to support one observation: virtually every regression which the children in this study made was for the purpose of correcting previous reading.

When a child missed a word on a list, unless he corrected it immediately he seldom ever went back. In reading the story, however, children frequently repeated words or groups of words, almost always to make a correction. Regressions themselves, then, were not errors but attempts (usually but not always successful) to correct prior errors.

Table V

Regressions in Reading

	First Grade		*Second Grade*		*Third Grade*	
	Per Child	*Per Line Read*	*Per Child*	*Per Line Read*	*Per Child*	*Per Line Read*
Word Only						
To correct word	2.40	.048	10.11	.090	10.30	.087
To correct intonation on word	.09	.002	.49	.004	1.42	.012
Total	2.49	.050	10.60	.094	11.72	.099
Phrase•						
To correct word by repeating phrase	1.54	.031	5.77	.052	7.54	.061
To rephrase	.29	.006	1.97	.018	1.03	.009
To change intonation	.52	.011	2.83	.026	2.76	.023
Total	2.35	.048	10.57	.096	11.33	.093

•For these purposes a phrase is considered *any* two or more consecutive words.

If regressions are divided into two groups, word regressions—those which involve one word immediately repeated—and phrase regressions—those which include repeating two or more words—the two types each represent almost exactly half the regressions at each of the grade levels. (See Table V)

Regressions seem to function in children's reading about like this: if the child makes an error in reading which he realizes is inconsistent with prior cues, he reevaluates the cues and corrects his error before continuing. Otherwise, he reads on encountering more cues which are inconsistent with his errors. Eventually he becomes aware that the cues cannot be reconciled and retraces his footsteps to find the source of the inconsistency. Thus, regressions in reading are due to redundant cues in language. They are self-corrections which play a vital role in children's learning to read. In two cases errors go uncorrected: (1) if the error makes no difference to the meaning of the passage, and (2) if the reader is relying so heavily on analytical techniques using only cues within words that he has lost the meaning altogether.

A Preliminary Linguistic Taxonomy

In a third phase of the study I categorized all errors of the subjects according to linguistic terminology. This analysis produced the *Preliminary Linguistic Taxonomy of Cues and Miscues in Reading*. The Taxonomy will be published in a separate article.

It should be noted that the 100 subjects of this study, though all attend the same school and have learned to read with a

fairly consistent methodology, exhibited virtually every kind of reading difficulty and deviation which I could predict linguistically.

Implications of This Study

There are several implications to be drawn from the description of the oral reading of these children. Some practices in the teaching of reading are made suspect.

1. Introducing new words out of context before new stories are introduced to children does not appear to be necessary or desirable.

2. Prompting children or correcting them when they read orally also appears to be unnecessary and undesirable in view of the self-correction which language cues in children.

3. Our fixation on eye fixations and our mania for devices which eliminate regressions in reading seem to be due to a lamentable failure to recognize what was obvious in this study: that regressions are the means by which the child corrects himself and learns.

4. Shotgun teaching of so-called phonic skills to whole classes or groups at the same time seems highly questionable in view of the extreme diversity of the difficulties children displayed in this study. No single difficulty seemed general enough to warrant this approach. In fact, it is most likely that at least as many children are suffering from difficulties caused by overusing particular learning strategies in reading as are suffering from a lack of such strategies.

5. The children in this study found it harder to recognize words than to read them in stories. Eventually I believe we must abandon our concentration on words in teaching reading and develop a theory of reading and a methodology which puts the focus where it belongs: on language.