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# Reading strategy development in beginning readers.

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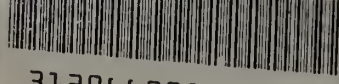
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READING STRATEGY DEVELOPMENT  
IN BEGINNING READERS

A Dissertation Presented

By

CYNTHIA MARGOT ELLIOTT

Submitted to the Graduate School of the  
University of Massachusetts in partial fulfillment  
of the requirements for the degree of

DOCTOR OF EDUCATION

September 1979

Education

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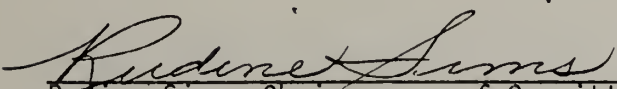
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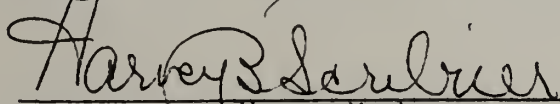
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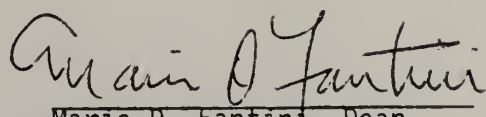
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School of Education

## DEDICATION

To my father, Frank M. Elliott, who taught me to read and to love to read over thirty years ago

To my mother, Erma Downs Elliott, whose bedtime stories were as special as she is

To my sister, Verneva Elliott McPike, who was loving and patient enough to read entire novels to me in our youth

To my sister, Eleanor Elliott Jones, who shared her art and her many other talents with me

To my sister, Portia Clareon Elliott, who has been a devoted sister-friend throughout our lives

To my sister, Rebera Elliott Foston, who shares a love of words with me

To my brother, Thomas Carlton Elliott, who always brings me wisdom and humor

And finally to "my" children, Ursula, Tracy, Tonya, Tamber, Bryan, Amia, Jennifer, Tia, Antoinette, and Steven, who have inspired, delighted, and counseled me with their special kind of love.

## ACKNOWLEDGEMENTS

Many people contributed to my doctoral program and the successful completion of this document. In particular, I would like to acknowledge the support, encouragement and assistance of:

- my dissertation committee, chaired by Rudine Sims;  
members: Harvey Scribner and Edward Hill;
- Portia Elliott, who advised, gave support and assisted with typing, data coding, and chart construction;
- Eleanor Jones, who did the illustration for the first instrument and who assisted with data collection;
- William Strickland, from whose scholarly example I drew strength, and for whose editorial assistance I am indebted;
- the students, teachers, principals, and school administrators at both the \*Beta and \*Gamma Elementary School sites, whose cooperation was integral to the success of this project;
- my comprehensive examination committee, chaired by Howard Peelle, whose members included Rudine Sims, Judy Gourley, and Donald Streets.

In addition, I am indebted to the assistance of:

- Jacqueline Anderson, for her beautiful illustrations;
- Cheryl Curtis, for assistance with data coding and typing;
- Sheryl Jablonski, for assistance with typing;
- Nancy Kaminski, for her typing of the final draft.

I should also like to thank:

- Michelle Harewood and Laurice McDonald, for their research assistance;
- Ramona, Kenny, Kimi, and Ramad, for their spiritual support during my research travels;
- Mr. and Mrs. J. T. Butler, for their support, assistance, and friendship throughout this period;
- Johnnella Butler, for sharing her parents with me;
- Ursula, Tonya, Tracy, and Tamber, for their love and encouragement;
- Bryan, Jennifer, Amia, and Steven, for their expert opinions on reading;
- Toni and Tia, whose love sustained me when nothing else could.



ABSTRACT  
READING STRATEGY DEVELOPMENT  
IN BEGINNING READERS

(September 1979)

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Beginning reading instruction has traditionally been predicated on assumptions about the print-ignorance of beginners. In this and other print-abundant environments, these may in fact be unwarranted assumptions. Beginning readers functioning as the curious learning organisms that they are, have in most instances developed skills for dealing with print. This skill development occurs in response to the learners' need to make sense of the printed matter so much a part of his/her environment. For beginning reading instruction to answer the requirements of these developing readers, it is necessary that it be based on what readers already know about print and on what strategies they will need to acquire to become proficient readers.

This study looks at the skills and behaviors of youngsters at the start of formal reading instruction. It is the purpose of this study to use psycholinguistic and miscue analysis theories to evaluate the responses that beginning readers make to an illustrated print medium. The evaluations will suggest which language cueing systems appear to influence the responses of the readers. The evaluations will also

give an indication of how these learners perceive the task of reading.

This study also looks at the changes which occur in reader response patterns over the course of the first year of formal instruction. The instructional practices and materials which may impact on the readers in this study are also examined.

The study yielded interesting information on the thirty beginning readers who agreed to participate in this study. Each of the respondents in the study interacted with the print in a unique fashion. No two respondents gave identical responses and the cueing systems used in making the responses were attended to with similar originality. Each reader seemed in possession of a unique set of strategies for dealing with print.

Patterns of strategy use did emerge in the population. Certain readers ignored or attended to cue systems in the language with some similarity. While responses were in all cases different, cueing systems were similarly observed and/or ignored by some subjects. Readers could in fact be grouped according to the similarity in their cue system observations. At the first observation, seven patterns of strategy or cue system use were apparent.

By the second observation, the population was less diverse with respect to their patterns of strategy or cue system use. Where seven patterns emerged in the first observation, the number was reduced to five by the second observation.

Instruction did indeed seem implicated in the changes which occurred in the reading strategies of these subjects over the year of formal reading instruction. The graphophonic cueing system, for example, received considerable instructional emphasis at both research sites. The major change in the population came in subjects who had at the beginning ignored graphophonic cues but by the end of the study relied heavily on these cues. Other subjects using graphophonic cues only minimally at the outset of instruction began by the end of the study to process practically all of the graphophonic cues often to the point of producing graphophonically accurate non-words.

The results of this study would seem to indicate that beginning readers know a great deal about reading and about the print that surrounds them in their environment. Treating beginning readers in this situation as though they have little or no knowledge of print, language, or reading, is a practice unsupported by the findings of this study.

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## CHAPTER I

### INTRODUCTION

#### Reading and the Possibility of Literacy

##### The Mystery That Is Reading

In an attempt to define reading, a major survey, The Psychology of Reading (Gibson and Levin, 1975), renders no fewer than seven definitions; describes at least six different models of the process; and includes five essays from proficient readers on what they think happens when they read. Reading clearly is an activity sufficiently complex to defy easy description or definition. Gibson and Levin settle on the notion that reading is "an active . . . self-directed . . . process of extracting information from text . . . for many purposes" (p. 5). They report further that reading is a perceptual, cognitive and psychological phenomenon. They write: "reading is a high-order perceptual process;" also, "reading is a highly complex cognitive process involving more than perceptual skill" (p. 11); finally, "reading is a flow of psychological processes" which when "the stages of acquisition are sufficiently finished, is a kind of living" (p. 475).

Any sufficient definition of reading, like an inclusive definition of the human organism, must embrace both lower order mechanical behaviors and higher-order psychological and spiritual phenomena. This psycho-physiological spiritual process, this special form of linguistic

symbol processing, reading, is many related things. It is, like the life-sustaining harvest, "a gathering and choosing from what is written" (Huey, 1968, p. 1); it is, like talking with a venerable sage, "the getting or giving counsel from a book" (Huey, 1968, p. 1); it is, like mining a precious ore, "extracting information from text" (Gibson and Levin, 1975, p. 5); it is, like an active, growing, loving child, "a (special) kind of living" (Gibson and Levin, 1975, p. 475).

### The Importance of Reading

Having, in part, defined reading, it may prove useful to look at the importance of reading. In some cultures, this form of symbol processing has little significance. But in this, a print-literate culture, reading pervades many aspects of living. Reading is required in so many parts of one's life that it is essential that reading is mastered for full participation. Children particularly have need to master this skill early, since their educational and later pursuits depend considerably on reading. If one is to "keep pace with one's companions," and when not to do so has dire economic, political, educational and perhaps even developmental consequences, it is imperative that reading belong to all who would desire or benefit from it.

### The Possibility of Literacy

Reading is not only an important skill, but one whose mastery has seemed fraught with difficulty. In view of what must often seem insurmountable difficulty with mastering reading, one wonders if indeed literacy is possible for all. It might seem that the gods are selective

and only visit this miracle on the chosen. It might seem, if you believe, along with the Jensens (1973), Jenckses (1972) and Shockleys (1972), that certain populations through some genetic joke are less well equipped for the task than others. It might seem, as it must to the advocates of compensatory education programs, that certain populations have been denied access to social, economic, and educational opportunities and require remediation before literacy is possible. Neither the mystical reverence which used to surround reading (Huey, 1968), nor the difficulties in its mastery, nor the social or genetic deficiency, real or imagined, should discourage the expectation that all children, barring specific physical impairment, can learn to read.

The human organism is nothing if not a competent learner. The human being learns most of the conduct which it displays. Dobzhansky, the Russian cultural biologist, suggests that learning is responsible for more of human conduct than instinct or heredity. He writes:

Children inherit their biological heredity from their parents through the sex cells, but they inherit culture by learning from people not necessarily related to them. . . . the process of transmission of culture is vastly more efficient than biological heredity (Dobzhansky, 1955, p. 4).

If the child displays what we consider failure behaviors, those behaviors have been learned just as success behaviors have been. Children learn to speak the language spoken to them, demonstrating their enormous capacity to learn. When these same children fail to read, one might assume that this failure was learned in the same way that his/her talking was learned. Teaching children to read may be as simple a matter as

building positively on learning competence and avoiding building negatively on this same competence. Literacy for all children is not only a possibility, but must become a reality. Producing non-readers in a society so dependent on reading can be considered near criminal. This dissertation examines beginning reading to discover, among other things, ways to build positively on the learning competence of beginners.

### Beginning Reading: An Examination

#### Statement of Problem

Despite the biological predisposition, and enormous learning capacities of children, the fact remains that many beginning readers "fail" to become proficient readers. How the beginning reader arrives at proficient reading is a question much in need of an answer. Asked another way, who is, to borrow from Saint-Exupery, "the (beginning reader) from whom this grown-up (proficient reader) grew" (1943). The proficient reader is one who copes easily with the ever-increasing sources of print. Reading is so much a part of living, for the proficient reader, that it goes on at scarcely a conscious level. The stop signs, roadside messages, advertisements, slogans, bumper stickers, this page, are met and routinely and effortlessly observed, absorbed, ignored, laughed at, or criticized. The proficient reader can use his/her skills for as many purposes as there are reasons for printed messages. If he/she chooses, the reader can, inform, counsel, inspire, entertain, anger or relieve anxiety, by reading.

How this proficient reader is able to do what he/she does is still somewhat a mystery. It does seem clear, however, that the accomplished reader is in possession of certain behaviors or strategies, that allow him/her to get at the messages preserved in print. Some of those behaviors likely include: efficient use of grapho-phonetic information present in the message; efficient use of "implicit information in the grammatical structures" (Goodman, 1969, p. 17) of the message; efficient use and possession of an "experiential conceptual background" (Goodman, 1969, p. 17) for the message.

The beginning reader is likely all the things the proficient reader is, only a little less experienced at being them. Like the proficient reader, the beginning reader is a symbol processor; a language-user; a learner; an adaptor; a pattern-recognizer; a generally curious being. It is not easy to determine exactly when this curious, language-user begins reading in this and other print-abundant environments. Goodman and Goodman (1977) offer that reading may begin almost as early as talking. They write:

Children growing up in literate societies begin to respond to print as language almost as early as they begin to talk. Traffic signs and commercial logos, the most functional and situationally embedded written language in the environment, are learned easily and early (pp. 322-323).

More certainty surrounds the start of "formal" reading instruction. Our notion of who the beginning reader is, is influenced by a rather arbitrarily designated start of formal reading instruction. The beginning reader may in fact be the neonate beginning to recognize its parents, or the toddler who has just learned to imitate the sound of a

train, or the adolescent just discovering a book on body-building. The beginning reader has embarked on a journey that will hopefully bring him/her to a comfortable and easy relationship with print. Even as we are less sure of the port of departure, we are sure of the destination--proficient reading.

Researchers have looked relentlessly at the period of beginning reading instruction in an attempt to discover ways to increase the number of proficient readers. Most often, beginning reading researchers looked at: the instruction, hoping to discover which methods serve which students best (Bond and Dykstra, 1966); the indices which might predict reading failure (deHirsh and Jansky, 1966); or the notion of "readiness" for reading (Brazziel, 1962; Russell, 1963). Questions about method, failure prediction; or the preconditions of reading may indeed be worthwhile but that these are the most productive questions is not clear. If one is interested in becoming a great tennis player or facilitating great tennis play, it does not seem a productive course to compare beginning tennis instruction, or to predict likely tennis failure, or determine pre-conditions for tennis success. It would seem more productive to look at a great tennis player, ascertain from his playing the elements of good play and/or if possible determine how such accomplishment is achieved. When one looks at beginning tennis, it is from the perspective of what great tennis players can do and how the behaviors of beginners compare.

Beginning reading research raises many questions which must concern researchers and teachers. Some of the questions and issues will be



discussed before the procedures for the Reading Strategies Research Project are outlined.

### Some Issues in Beginning Reading Research

Research in beginning reading is designed primarily to discover "guidelines for good practices in reading" (Karlin, 1973, p. 5); or, as Chall (1967) points out, it is designed "to answer practical questions" (p. 88) about some method or practice in use. Such questions include: which method is better; and when is the best time to start? Another design feature of beginning reading research is the search for causes and cures for reading difficulties and failure. Part of Chall's quest in Learning to Read: The Great Debate, is the discovery of "what is known about the influence of general intelligence and language skill on success in learning to read" (p. 6).

Search-for-Guidelines Studies. Several search-for-guidelines studies have been reviewed by Karlin (1973). He divides the studies into: Basal, Organization and Classroom practice studies. The majority of studies included in his review were a part of the first-grade U.S.O.E. studies, summarized by Bond and Dykstra (1967). From the basal studies, Karlin concluded:

1. That one type of program does not seem to be overwhelmingly superior to another
2. That differences in program effectiveness might be attributed to teacher variables
3. That any one program fails to provide for all reading requirements (p. 7).

From the Organization studies, he concluded that:

1. There are times when it is feasible to teach a class of children as a whole, providing all can benefit from the offering.
2. Grouping can narrow but not completely eliminate the range of reading abilities. Recognizing the difficulties in providing for individual differences, teachers might function more effectively if the range were not too great.
3. Combinations of individual and group instruction seem to be more productive than either alone. Teachers can take advantage of any organizational patterns which assist them in meeting the learning requirements of all their pupils.
4. No organizational plan will insure reading success. The "know-how" the teacher brings to the plan is what counts (pp. 9-10).

Finally, Karlin looks at the implications from research related to classroom practices. After looking at the research on readiness, early reading, remediation, appropriate materials, discovery learning, learning modalities, vocabulary development, comprehension, content area skills, and skill practice, he concludes that "there are few definitive conclusions" (Karlin, 1973, p. 17). Trends rather than answers emerge from this type of research.

Jeanne Chall (1967) also bemoans the inconclusive state of the research. Chall further asserts that the research generally is "inadequate in both depth and scope" (p. 88). "The questions . . . have usually not been answered well. Other questions have not been asked" (p. 88).

Maliphant, Supramaniam, and Saraga (1974) similarly lament the state of experimental research in reading. They point to three problems

with this research (i.e., word recognition, sentence reading contextual clues). The difficulty lies in assuming that assessment by such tests necessarily indicates the nature of the problem or its cause. Secondly, most of the research fails to establish a cause/effect relationship but proceeds as if one exists. The third problem is with the design of most research which fails to account for many important variables. This failure makes application of the research difficult if not impossible.

The questions and research on reading practices seem indeed to leave something wanting. The research into the causes and cures of reading failure seems also problem-laden. This second type of research seems to fall into a category that Chall (1967) describes as parochial.

Like scientists in other fields, especially in the social sciences, these researchers have been influenced by the philosophical assumptions and social problems of the times, both in selecting problems and particularly in drawing conclusions and making recommendations (p. 89).

Cause-and/or-Cure Studies. Much of the cause-and-cure research looks for its answers at the "personal characteristics of the learner" rather than at method or readiness. Researchers have looked at the "race" of the learner, the "Cultural" advantage or, more often, "disadvantage" of the learner, and the socio-economic status of the learners, to try to explain causes of reading failure, or to offer cures which could be tested by research.

"Racial" Causes of Reading Failure. Comparisons of student performance across racial lines is a practice not peculiar to reading researchers. Looking at the differences between black and white

students in school performance and debating the causes has been a past-time in the United States for as long as there has been public education for both races (Ogbu, 1978, p. 67). Reading researchers only reflect a prevailing ethos about race and racial differences when they design research that looks at reading performance as a function of race. Studies like those conducted by Bordeaux and Shope (1966); Stauffer (1966); Spache, et al. (1966); look at method of instruction or readiness but still compare achievement along racial lines.

The difficulties with racial comparisons are many. At the most fundamental level for instance the term "race" presents problems of definition. Ashley Montagu offers:

. . . the term corresponds to no reality whatever, but constitutes an amalgam of erroneous and stultifying ideas of the most damaging kind . . . (and) has been made the basis of social and political action of the most heinous kind (Montagu, 1975, p. 1).

If by race one means an ethnic group which is defined by customs and common traits, rather than a genetically determinable group, there is still difficulty with drawing comparisons. Despite the claims of researchers like Jensen (1969, 1973), Garrett (1971), and Ingle (1970), there exists no evidence that the physical characteristics on which ethnic or "racial" identification is made are connected to group achievement (Montagu, 1975, p. 2). The popularity of this assumption is still insufficient reason for its adoption in research design. Many factors of ethnic group existence in a society impact on individual performance. Simple comparisons along these very questionable lines would not seem to yield particularly useful information.

"Cultural" Causes of Reading Failure. Unsatisfied by purely racial or ethnic explanations of school performance differences, some researchers began to assert that "cultural deprivation" was the culprit (Ausubel, 1964; Bloom, et al., 1965; M. Deutsch, et al.; Gottfried, 1973; Hunt, 1964). Cultural deprivation theory holds that "children are culturally deprived when they come from home and neighborhood environments that do not provide them with adequately organized stimulation for normal development (Ogbu, 1978, p. 44). As a consequence of their deprivation, these children are supposedly "retarded in linguistic, cognitive and social development" (Ogbu, 1978, p. 44). Although the proponents of cultural deprivation theory insist that "culturally deprived" referred to no specific racial group, the studies and programs overwhelmingly involve black children.

Reading researchers began to subscribe to the notion of cultural deprivation in substantial numbers. These researchers began to label the subjects of their research: "disadvantaged" (Bereiter and Engelman, 1966; Cohen, 1967; Goldberg and Tannebaum, 1967; Hunt, 1967; Dunn, 1967; Goldman, 1969; Harris and Serwer, 1966; Hawkridge, Tallmadge and Larsen, 1968; Rauch, 1967), "culturally disadvantaged" (Brazziel, 1962; Fite and Schwartz, 1965), "socially disadvantaged" (Cohen, 1965), "educationally disadvantaged" (DiLorenzo and Salter, 1968), "culturally deprived" (Malpass, William and Gilmore, 1967; Riesman, 1962), and "psychosocially deprived" (Hodges, McCandless and Spicker, 1967).

Culture seems to be taken here as a commodity which is possessed in greater and lesser degrees by different groups of people. Moreover,

it seems to exist in superior and inferior forms. The biological evidence supports neither of these views. It is rather that "the genetic endowments which permit the acquisition and maintenance of culture are the property of the human species as a whole, not of any one race" (Dobzhansky, 1967, p. 354). Culture is transmitted by learning. And from an evolutionary point of view, the human species is indeed a cultural creation. That is to say that those things inherited by learning are as influential in the evolution of man as are those things inherited through the sex cells. If a human organism exists, he/she, by definition, is a cultural being and cannot therefore be deprived of culture, except through death, or some other extreme separation of the organism from the forces of evolution.

Linguistic Causes of Reading Failure. From the theory of cultural deprivation stems the notion that some reading failure, particularly among black children, is due to "linguistic deprivation."

Social scientists, particularly educational psychologists, generally labeled black students as "verbally deprived" (Bereiter, 1965; Bereiter, et al., 1966; Bereiter and Engelman, 1966; C. Deutsch, 1964; M. Deutsch, et al., 1967; Jensen, 1968; Whiteman and Deutsch, 1968). Many of the efforts in the 1960's to explain why black children were failing in school, especially in reading skills, and what solutions were needed to prevent that failure were based on the notion of verbal deprivation (Ogbu, 1978, p. 203).

Again, the linguistic evidence runs counter to this assumption. Different dialects of the language in no way constitute linguistic deprivation (NCTE conference paper).

"Scientific Colonialism" in Reading Research. How are researchers able to cling to what seem indefensible positions? The

researchers seem unable to shake themselves from what Wade Nobles (1978) refers to as "scientific colonialism" and "concept incarceration" and what Kenneth Goodman (1974) refers to as elitism, racism, and ethnocentrism. All the theories and assumptions here discussed hold in some way to the notion that the learning or teaching mechanisms of some groups of people (mainly black people) are somehow defective. The defects are caused either by cultural deprivation or conflict, institutional inequity or genetic underendowment. The evidence seems overwhelmingly to suggest that this human, learning, cultural organism, black or otherwise, learns efficiently and well all its behaviors save the first nursing and grasping infant behaviors.

It seems unlikely that the researchers guilty of this "unscientific" behavior will be dissuaded from their course through persuasion, semantics or data, as is suggested by Fried (1965) and Montagu (1962). It is, however, important for researchers working in this area to recognize that the research and literature is in many cases unsatisfactory. It is also necessary, it seems, to design alternate models for research which do not duplicate the errors of the previous research.

### Reading Strategies Research Project

The reading project undertaken for this dissertation is designed as an alternative for many models of beginning reading research. It looks at the strategies and behaviors which children who have learned oral language and live in a print-abundant environment bring to reading

instruction. It considers ethnicity, social and cultural, geographical factors in terms of the experiential backgrounds and strengths that can be built on for reading. It looks at the literature which subscribes to the view of children as healthy, learning organisms. The results of this project will, it is hoped, give some cause to reexamine some of the models and assumptions used in beginning reading research, which are not only theoretically unsound, but also do damage to the children they seek to help. The discussion of this project begins with a look at the theoretical assumptions which give it its impetus.

Theoretical Underpinnings. The assumptions of this project about beginning reader/reading derive from "Psycholinguistic"<sup>1</sup> and "Miscue Analysis" research. It is important to look at some of the major ideas advanced in these areas, because what is being advanced is a new way of looking at reading and reading instruction.

Psycholinguistics. Frank Smith (1973), a major contributor in this area, contends, for example, that two ideas have impacted particularly on notions of reading and reading instruction:

- (1) That the more that is known about a subject, the less visual information required to identify a letter, word, or meaning, and
- (2) There is a severe limit on the amount of information that can be processed through the visual system.

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<sup>1</sup>The term "psycholinguistic" has labeled a number of interesting and even bizarre events, but here the term is used to mean the research and researchers who occupy the position at the intersection of the fields of Cognitive Psychology, Transformational Generative Linguistics, and Reading. Some of these theorists are: Frank Smith, Kenneth Goodman, Paul Kolers, Carol Chomsky, Charles Read, Jane Torrey, Yetta Goodman, and Dorothy Watson.



Much of the writing and research in this area supports and builds on these two notions.

In keeping with these notions, Kenneth Goodman (1970) offers this theoretical view of reading:

Reading is a psycholinguistic process by which the reader (language user) reconstructs, as best he can, a message which has been encoded as a graphic display (p. 103).

The efficient language user, suggests Goodman, continuously samples the graphic display, predicts the upcoming structures, and tests his/her predictions "against the semantic context which he builds up from the situation" (Goodman, 1970, p. 103), thereby confirming or rejecting his/her predictions.

Paul Kolers, through his experiments in pattern recognition, presents convincing data that indicates "recognizing words does not occur by the piecemeal recognition of their letters" (Kolers, 1970, p. 38). His experiments show also that "reading of connected discourse (does not) proceed by the piecemeal recognition of words" (Kolers, 1970, p. 38).

Psycholinguists have considered questions of decoding, phonics and spelling, in the context of the evidence on the needs and limitations of the visual system. Frank Smith (1973) argues persuasively that decoding to sound (the goal of much beginning reading instruction) is an inefficient, at best, and an impractical, near impossible avenue to meaning. Smith contends that meaning does indeed precede sound and not the converse. Phonics, he asserts, at its best "can provide only approximations." Phonics as a system is cumbersome. Moreover, phonics

makes little attempt to handle "exceptions" and English is a language replete with phonetic exceptions.

Carol Chomsky (1970) looked at the English spelling system and concluded that English spellings, though often phonetically irregular, are efficient, abstract lexical representations. English spellings preserve lexical regularities at the expense of phonetic consistency. The lexical relations of the words muscle and muscular, for example, are retained in the spellings when phonetic regularization would eliminate elements of the two words which indicate clearly their connectedness.

The research and writing in the area of psycholinguistics divests reading instruction of many unsupported assumptions. Ideas about phonics, spelling, dialect, oral reading, and reading errors have been challenged by the evidence uncovered. The review of literature for this dissertation will take a more exhaustive look at the research in this category.

Miscue Analysis. One important consequence of the wedding of psycholinguistics and reading is the development of a constructive way of looking at the "mistakes" made in oral reading--miscue analysis. Analysis of the oral miscues "began in 1962 as a technique for studying closely what children do when they read" (Goodman, 1976, p. 1). Miscue analysis developed under the leadership of Kenneth Goodman. It is a "system for comparing expected oral reading responses with observed oral reading responses" (Goodman, 1976, p. 1). The term miscue is used "in an attempt to avoid some of the stigma frequently attached to words

like wrong" (Smith, 1973, p. 158).

Goodman and Goodman (1977) indicate that in oral reading the responses are produced as the reader strives to reconstruct meaning. This fact makes oral reading an excellent laboratory for examining the processes and competence that underlie reading. Miscue Analysis, therefore, gives researchers much evidence including evidence on how the reader:

- processes graphic information  
miscues are often graphically quite similar to expected responses;
- processes syntactic information  
in miscues involving substitutions, nouns are often substituted for nouns, verbs for verbs;
- transforms sentence structures  
miscues often involve changing dependent to independent clauses; questions to declaration;
- uses conceptual background to predict grammar and meaning  
miscues often involve substitution of less familiar expressions for more familiar expressions. (American readers often substitute "headlight" for "headlamp.");
- builds and uses strategies while reading  
miscues made on repeated structures and expressions often change and improve over the course of reading.

The miscue analysis procedure, which will be outlined in Chapter II, is a research tool used "to understand the reading process and to perfect the theoretical model of the process" (Goodman, 1969, p. 28). Some of the leaders in this field of research should be noted here. Of course Kenneth Goodman, Professor of Education at the University of

Arizona, is a major force in this area. Carolyn Burke and Yetta Goodman, who developed the Reading Miscue Inventory, are also major contributors in this field. The work of these and other researchers in miscue analysis will be examined more thoroughly in the "Review of Literature" in Chapter II.

Beyond Miscue Analysis. A consequence of having gained what many think is a clearer view of the reading process through miscue analysis, is that reading now appears to be accomplished through the readers' use of specific strategies. Dorothy Watson (In Goodman, 1976) contributes:

. . . within the reading process there is an element of organization which requires readers to use specific strategies. These strategies are, in a sense, stored in the long-term memory of the reader and are energized when the reader interacts with print. These strategies involve predicting, confirming, correcting, and integrating meaning; they are available to the less proficient, as well as to the accomplished, reader (p. 104).

Inasmuch as this research project hopes to look at the reading behaviors, "strategies," of beginning readers, it will be important to look at the literature pertinent to this topic.

Purpose of Study. The purpose of this study is to investigate the "reading" behaviors of learners at the start of formal reading instruction, and to look at the development of these behaviors during the first year of instruction. Little beyond the theoretical exists about the "reading" children do before and during initial instruction.

In order to be able to observe the behaviors of interest, a number of first graders were asked to read a story and their responses were

recorded. The children were encouraged to use whatever skills they wanted to make sense of the print. A second observation using a different story was made later in the academic year. Analysis of these responses should result in a description of the strategies employed by beginning readers, both before and at the end of a year of formal instruction.

The Research Questions. The study of beginning reading can take many directions. Researchers have already demonstrated the variety of forms that study in this area can take. This study's focus is shaped by a theoretical framework growing out of the work done in psycholinguistics and Miscue Analysis. The impetus deriving from this framework is away from notions of "readiness" and remediation, and away from an atomistic view of the reading process. The impetus is towards looking at whole language and how the beginner comes to terms with the messages preserved therein.

The research questions therefore look at three phenomena of the beginning reading adventure. The questions focus on: the strategies for handling print possessed by readers at the beginning of formal instruction, the instructional programs and their attention to all areas of the language cueing system, and the strategies for handling print developed and/or abandoned during the first year of instruction. The notion of strategies in reading is supported by the research in Miscue Analysis. This research study therefore borrows from Miscue Analysis for the formulation of the research questions. Specifically, this study seeks answers to the following questions:

- (1) What print-handling strategies do learners have at the start of formal instruction?
  - Are there similarities in strategies used among beginning readers?
  - Are there dominant (favored) strategies used among beginning readers?
  - Are there conspicuously absent strategies in the group of beginning readers? In individuals?
- (2) What strategies are acquired during the first year of formal instruction?
  - Are there similarities among beginning readers?
  - Are there any patterns of acquisition among beginning readers?
- (3) Is there strategy attrition during the first year of instruction?
  - Are there similarities among readers for this phenomenon?
  - Is there a pattern to strategy attrition among these readers?
- (4) To what can the acquisition and/or attrition of strategies be attributed?
  - Does the instructional emphasis seem implicated?
  - What are the major changes in strategies of the population?
  - What are the major changes in strategies for individuals?

The areas outlined above define the scope and direction of this study. The more specific research questions formulated for this study appear in Chapter III and are discussed in terms of the proposed analysis of data also in Chapter III.

Significance of the Study. There are implications for at least three populations: educational personnel involved with beginning reading, parents of young children, and reading researchers. If the results of this study reveal that many strategies are developed before reading instruction begins, the role of parents as experience-providers becomes important to the reading process. If the results demonstrate that youngsters possess many strategies that current beginning reading instruction ignores or eliminates, there will be reasons to consider revising those approaches to reading instruction to a strategies approach rather than a word or letter approach. And finally, researchers who look at beginning readers as non-linguistic, reading-ignorant beings may find the results revealing. If the results demonstrate that beginning readers behave as inexperienced, proficient readers, there will indeed be evidence to support a change in the view of what skills the beginning reader possesses and/or needs help to acquire.

The assessment techniques of this research project are sufficiently novel to add another dimension to the implications of this study. Beginning reading assessment tools look most often at word recognition and vocabulary (California Achievement Test--Lower Primary Grades; Doren Diagnostic Reading Test of Word Recognition Skills; SRA Achievement Series; Gates Primary Reading Test; Metropolitan Achievement Test; and Primary Reading Profiles) and at sentence and paragraph reading (California Achievement Test; Gates Primary Reading Test; Iowa Silent Reading Test; Durrell Analysis of Reading Difficulty; and Gray Standardized Oral Reading Paragraph Test). Few assessment instruments

provide a continuous story for the reader to deal with (exceptions include: Gillmore Oral Reading Test and Leavell Analytical Oral Reading Test). These tests, however, interrupt the story flow with "comprehension" questions which follow each paragraph.

None of these beginning reading assessment tools allows the reader to process an entire story and demonstrate his/her comprehension through an open-ended retelling (the procedure used in miscue analysis). None of these propose an analysis of the discrepancies between the text and the responses for their causes. The assessment techniques for this research project provide stories in rich picture context which the reader processes with interruption only as he/she requests it. At the conclusion of the reading, the reader is asked to tell what he/she remembers of the story. This procedure and the proposed analysis may indicate a different direction for the evaluation of beginning readers' skills and abilities.

If the research bears out the psycholinguistic assertion that processing short sequences of print which lack full language context is more difficult than processing longer sequences and that failure at the short sequences (i.e., word lists) need not mean failure to process longer more meaningful sequences (i.e., stories), there will be reason to reexamine assessment generally.

Delimitations of Study. This study is descriptive in nature, and uses a theoretical framework to abstract from the data the strategies which the readers seem to use to make their responses. Establishment of the exact strategies of the readers is limited to the extent that the



framework is applicable to the data available and to the extent that the researcher is able to draw the proper inferences from the data.

Further, the study should deliver much interesting and useful information on the reading strategies of beginning readers. The study will also look at those reading programs to which the subjects are exposed as they may affect the strategies of the readers. It will not, however, look at the reading programs with sufficient depth to recommend adoption or abandonment of any program. The data will reveal much about reading behaviors of youngsters but this information cannot be taken as a definitive statement about the value of one reading program or another.

In finding the subjects for this study, no attempt is being made to have represented all ethnic groups and/or socio-economic groups. There is the possibility that different populations could alter the data and findings. But to the extent that there are striking similarities among five, six and seven year olds, the findings will have definite value within those understandable limits.

The length of time involved in the study imposes yet another delimiting factor. The study will be conducted over the first year of formal reading instruction. Looking at the first few months of instruction gives many useful insights. However, the period is too brief to establish or identify the best readers or the best reading programs.

A larger-scaled research project and a refinement of the data collection and analysis would have the advantage of eliminating those

factors which here limit. For this project, these factors will limit the scope but not the importance of the research.

### Definition of Terms

Terms used repeatedly throughout the dissertation are defined as follows:

Beginning Reader: The learner at the start of formal reading instruction.

\*Beta Elementary School: In this study, Beta Elementary School is the code name used to identify the midwestern school site.

Decoding: The process of going from the written code to its corresponding oral form for the supposed purpose of arriving at meaning.

(E.R.): The abbreviation for Expected Response--the response one expects to be made in response to a printed message.

\*Gamma Elementary School: In this study, Gamma Elementary School is the code name used to identify the southern school site.

Miscue Analysis: A systematic classification of observed oral reading responses that differ from those expected responses.

(O.R.): The abbreviation for Observed Response--the actual response made when the subject interacts with the printed message.

Phonics: The term usually refers to the system of teaching grapheme-phoneme correspondences.

Print-Abundant Environments: Any environments where print occurs in many forms and for many purposes (e.g., road signs, advertisements, bulletin board messages, labels, books, magazines).

Reading: For the purpose of this study, the form of symbol processing involved with written words and symbols. Moreover, the extraction of information from text.

Reading Strategies: Organized patterned abilities, stored in long-term memory that are triggered when there is interaction with print.

Reader Strengths: Those strengths (strategy categories) possessed by readers.

Strategy Categories: The categories comprising the Reading Response Inventory which for the purpose of this study can be considered to indicate the existence of a group of behaviors one or more of which may have influenced the observed response.

### Outline of Remaining Chapters

The remaining four chapters look at different, but related, areas that bear on the research project.

Chapter II reviews the literature on psycholinguistics and Miscue Analysis. This chapter attempts to convey both a description of the psycholinguistic view of reading and to examine the works of major contributors in these related fields.

Chapter III looks at the methodology and instrumentation employed in the beginning reading study. This chapter includes an outline of the research questions, a discussion of the pilot study, a review of the research design and procedures, a description of the population, the sites, instruments, and the data analysis techniques.

The data are analyzed and discussed in Chapter IV. Seven research questions form the basis for the analysis.

Chapter V explores the implications and the conclusions of the study.

## C H A P T E R   I I

### REVIEW OF LITERATURE

#### Overview and Purpose

This review of literature includes those works which embrace the notion of all readers as healthy, learning organisms who have taught themselves much language already. It looks at most particularly the work done on psycholinguistics and miscue analysis. It is the goal of this review to examine the research and writing which specifically undergirds this project, and to describe in part the psycholinguistic perspective on reading and reading instruction. The first part of the review indeed is a review of the psycholinguistic contributions to the understanding of the reading process. This section is followed by a similar review of contributions to reading instruction and beginning reading. The latter sections of the review look at miscue analysis and attempt to describe the techniques and discuss its use in reading instruction.

#### The Psycholinguistic Contribution to the Reading Process

The contributions of psycholinguistics to the study of reading arrive from different academic sectors; i.e., psychology, linguistics,

education, sociology. Each, however, attempts illumination of some aspect of the process or conveys tenets for the teaching of reading. For the purpose of conceptualizing this section of the review, it is useful to think of these contributions to our understanding of the reading process as providing insights in one of the four areas that E. Smith, et al. (1970) identify as aspects of "total language." The four areas identified are:

- (1) Intra-word
- (2) Intra-lingual
- (3) Intra-reader
- (4) Extra-lingual/Extra-reader (This area is just beginning to be explored and will not be included in this review.)

One of the features of the psycholinguistic research is that it increasingly supports the "total language" view. Even as it is convenient to look at the literature on the reading process, for example, as focusing on one aspect of language or another, it seems clear that even if the focus is in one area the other areas of language are significantly implicated.

### Intra-Word Contributions

Much of early reading research concentrated on eye movement, and the perceptual facets of the reading process. Huey (1968) discusses several of these studies, but the experimenter whose works have become classic is J. McK Cattell. His experiments provided convincing evidence on how words are or are not perceived and/or comprehended. The Cattell

studies seem to indicate that meaning affects word apprehension. From the results of his experiments, he concluded that subjects read in whole words and phrases rather than by letters. Huey describes Cattell's findings thusly:

Cattell found that when single words were momentarily exposed, they were recognized as quickly as single letters, and indeed, it took longer to name letters than to name whole words (p. 72).

Paul Kolers' work follows the work of Cattell by more than sixty years, but the Kolers experiments substantiate Cattell's notions about meaning in letter and word recognition. In his experiments, Paul Kolers (1970, 1974) investigated the ways print is processed by varying timing, spatial orientation of text, directionality, and language. These experiments "disproved the idea that ordinary reading proceeds by a sequential perception of individual letters composing words" (Kolers, 1974, p. 84). The evidence indicates that word perception requires what Kolers calls "a meaningful bounding or grouping of letters" (Kolers, 1974, p. 84). Neither letter-by-letter nor word-by-word processing of language seems likely from the results of the experiments. What seems to happen is that the reader generates "internal grammatical messages" that are arrived at by what Kolers calls "a skilled sampling of the features of text plus a kind of storytelling or reconstructive process" (Kolers, 1974, p. 90).

Deborah Lott Holmes (1971) contributes also to our understanding of how the word is perceived by examining two assumptions which seem on the surface "logical" and which underpin much early reading

instruction and to which the results of Kolers' experiments do considerable damage. The assumptions:

- (1) that word identification requires prior identification of its letters;
- (2) that meaning cannot be extracted from text without prior word identification,

despite their "intuitive appeal" are, according to Holmes, without supporting empirical evidence. Holmes' arguments against these assumptions are of dual benefit. The arguments, of course, call these notions into question and systematically discredit them. The arguments also review the research into letter and word recognition.

In sum, Holmes writes:

We have asserted not just that the fluent reader can make use of the meaning of what he reads in order to identify words that he must do so in normal reading. If word identification preceded meaning identification in oral reading, then the reader would not understand what he was reading. The almost limitless range of faster silent reading could not be accomplished with comprehension at all if word identification were essential. Text can be comprehended only if it is read for meaning in the first place; reading to identify words is both unnecessary and inefficient (p. 414).

The contributors who have focused their attention on the word each seem to have come to the conclusion that in reading, the word is not identified by apprehension of the letters that comprise it, but rather, that meaning reduces the need to analyze constituent letters. Likewise, meaning is not arrived at by a piecemeal consideration of the words that convey it. Here again, meaning precedes word identification and makes word-by-word identification inefficient or unnecessary.

### Intra-Lingual Contributions

An understanding of the reading process is greatly enhanced by the psycholinguistic researchers who looked at the flow of the language and its impact on reading. In this section, the spelling system of the language, the connection between oral and written language in reading, and how the language system is used in the reading process will all be examined. Moving from a consideration of how words and letters are apprehended, it would seem productive to look now at how these words are spelled, and how these spellings facilitate or complicate the task of reading.

Teachers of beginning readers, particularly, have long lamented the phonetic inconsistency of the English language. Attempts to phonetically regularize the language have been with us since the year 1200 (in Gibson, Zachrisson, 1931): George Bernard Shaw advocated reform; the initial teaching alphabet was another reform; and diacritically marked readers are yet another. Carol Chomsky (1970) suggests that phonetic regularization is not only unnecessary but may in fact be an entirely counterproductive exercise. Language and the language user possess, asserts Chomsky, a set of rules which can be used to understand speech. This rule system includes a lexicon or dictionary of the language which includes not only word pronunciation, syntactic function and meaning, but also how the words are related to each other. The words in this "internal lexicon" are abstractly represented in a form Chomsky calls a "lexical spelling." Chomsky asserts that, "English spellings correspond fairly well to these abstract underlying forms





The "decoding hypothesis," writes Smith (1973):

asserts that written language can be comprehended only when converted to actual or implicit speech to which the reader listens.

To which Smith adds:

--a procedure as impossible in practice as it is untenable in theory (p. 70).

Smith asserts that oral language is, in fact, a code (a surface structure) for underlying meaning (deep structure) which must be "broken." Written language and speech are not duplicates of each other. They are rather two surface representations of an underlying deep structure. Smith's argument is basically that meaning is not the end product of the decoding to sound process. Meaning can and does occur independent of sound (i.e., one need not say or hear the word "tree" to know or comprehend that a tree has been experienced). Meaning, says Smith, facilitates word and letter identification. This seemingly "perverse" position for meaning reduces uncertainty and the amount of visual information required to identify what is written.

It can be demonstrated that meaning is required to produce a correct oral response. The decisions on how the words in the following sentence are pronounced are predicted on meaning:

We should read the minute print on the permit (Smith, 1973, p. 77).

Time, memory and physical constraints make sound production without meaning impossible. Even if "decoding to sound" were in fact possible, it is not what actually happens during fluent reading:

Even when the fluent reader comes across an unfamiliar word that he must identify . . . he still does not decode into sound in order to acquire meaning. Rather, he makes use of meaning in order to discover sound (p. 79).

Rather than decoding to sound for meaning, Smith advances that readers reduce unlikely alternatives using prior knowledge and predict the structures. It is by this method that reading seems to proceed.

The reading process exploits most of the elements that occur in the flow of language. These elements include:

- pattern of word or function order
- inflection and inflectional agreement
- function words
- intonation (pitch, stress, juncture)
- contextual meaning of prior and subsequent words and whole utterances
- redundant availability of all these clues.

The labels for these elements are familiar to those who discuss language, but all language users demonstrate mastery over: allowable and unallowable word patterns; noun and verb markers; stress patterns; lexical definitions; and other language phenomena. Of great importance to the reading process is the fact that all these features of language are redundantly available. Redundancy refers to the "tendency in language to restrict the sequences in which language symbols can occur, to provide several cues to the same bit of information, and thus be less than 100 percent efficient in the amount of language transmitted per unit of language" (E. Smith, et al., 1970, pp. 297-298).

Redundancy does two things to the reading process:

- (1) "it provides the reader with repetitious clues,"  
and
- (2) "it provides a narrowing of elements in the language that can fill certain slots" (p. 298);  
e.g., the sounds that can follow /b/ in Bob  
are restricted;  
the words that can follow Bob are  
restricted;  
the words that can follow Bob saw are  
further restricted;  
Bob saw an restricts more.

We know from the studies of Miller (1965) and others that it is possible for us to hold in short-term memory up to seven different pieces of information, on the average. When confronted with more information, there is a memory overload. Given this phenomenon and the experiments done by Cattell and later by Kollers, it seems clear that reading cannot proceed by serially processing each letter and each word in the text. What seems to happen is that meaning organizes language in such a fashion that it is not necessary to serially process letters or words. Meaning not only assists in recognition as Smith, E. Smith, et al., and Chomsky suggest, but also operates at all levels of written and oral language. It exists not as an end product but as a factor which allows decision making to proceed rapidly and reading to proceed fluently. Meaning develops in oral language and becomes a part of the oral language users' personal equipment for reading. The next section of the review will look at the personal equipment of the language user which is important to the reading process.

### Intra-Reader Contributions

In this area, the research offers a different view of the learner, his language, and language acquisition. The basic view proposed by psycholinguistics of the learner is that he is a particularly resourceful and competent language user. On this point, Kenneth Goodman (1974) offers:

All children have immense language resources when they enter school. By understanding and respecting and building on the language competence of kids, we can make literacy an extension of the natural language learning of children (p. 823).

Goodman's view may seem radical, given the educational stereotypes which influence many instructional programs (e.g., DISTAR Program, Head Start, other programs for the "linguistically" and "culturally" "disadvantaged"). These stereotypes grow out of and are fostered by the ignorance and prejudice of educators, researchers, and writers.

Goodman laments:

Researchers and authoritative writers are not immune to elitism and racism. Ethnocentrism, a tendency to judge others by the extent to which they deviate from one's self, contaminates a good deal of the professional literature dealing with the language competence of low status children (p. 823).

The impact of the literature and these notions is the emergence of compensatory educational programs which seek to repair and make whole these defective children. Compensatory programs are the vehicles "through which we will help these unfortunate wretches to overcome their deficiencies and inadequacies and become as much like ourselves as is possible" (Goodman, 1974, p. 824). This is a solution, says Goodman, to problems that do not exist.

Every child, barring the most severely handicapped, is competent in the language which was spoken to him in his community. It is that language and the competence in that language which every reader brings to the reading task.

Is the language which was spoken to him in his community sufficient to assist each child in reading? The question is one of dialect, and how different dialects influence performance. Smith (1975) provides that:

Just as no language (or cluster of dialects) seems to be inferior to the other languages (or clusters of dialects) in range of meanings, it can express so dialects do not appear to have significant differences as potential means of communication (p. 211).

The issue of dialect has been considered by psycholinguists because it is an issue tied to reading instruction and reading performance in a number of ways. The NCTE Conference on College Composition and Communication in 1974 examined the issue and offered considerable clarity. Dialect differences, advances the NCTE Conferees, "derive from events in the history of the communities using the language, not from supposed differences in intelligence or physiology" (p. 4). These differences are not sufficient in magnitude to interfere with comprehension among different dialect speakers since the differences "are confined to a limited range of surface features" which apparently do not affect deep structure. Jane Torrey (1970) looked at phonological, grammatical and semantic structural differences between Afro-American dialect and edited American English and found them to be negligible.

Dialect does not impede the reading process. When one reads, what is involved in a decoding to meaning (deep structure), not decoding to utterance (NCTE, p. 8).

The fact of the readers' immense language resource may be easily accepted for "sophisticated" language users, but what of "immature" language users, beginning readers, for example? The research indicates that linguistic sophistication arrives fairly early. According to Smith (1972), it seems that by age three and one-half most children appear to have mastered all the important syntactical rules of their language. "He has acquired," writes Smith, "the competence to produce and comprehend all possible forms of sentence construction found in adult speech" (p. 37). Charles Read, in his examination of the invented spellings of pre-schoolers, discovered that children abstract from their phonetic perceptions in a systematic way which suggests phonological development of some sophistication. "The children do not know . . . the set of lexical representations and the system of phonological rules that account for much of standard spelling; what they do know is a system of phonetic relationships that they have not been taught" (Read, 1974, p. 30). Along with the rules that these youngsters have mastered goes their knowledge of how to learn language and its rules. These two properties are valuable to the reading process.

Even as it has been convenient for us to look at language in a rather stratified fashion, it is clear from the evidence that language at any level is mitigated by all other levels. The psycholinguistic research makes it clear that reading involves all levels of language at

all times. Each sector of language does, however, have its own cueing systems and fluent readers make efficient use of all. E. Smith, Goodman and Meredith (1970) convey that cue systems exist: within words; in the flow of language; within the reader; and external to both the language and the reader. "Comprehension depends on the reader using all the cues available to him" (p. 206).

In the next section of the review, reading instruction becomes the focus. From the model of the reading process outlined earlier in the review, it is not surprising to find in the psycholinguistic literature the assertion that:

No curriculum for teaching can be complete that neglects any of the cue systems. No method of reading instruction can be sound or fully successful that is not based on an understanding of the psycholinguistic process of reading (E. Smith, et al, p. 266).

### Psycholinguistic Contributions to Reading Instruction

From the theoretical model of how reading proceeds derives a framework for reading instruction that departs from traditional practices in important ways. The departure is not merely a replacement of old methods with a new panacean method. There is in fact no psycholinguistic method of teaching reading (Smith and Goodman, 1971). Instead, psycholinguistics provides a perspective on the reading process and learning to read from which materials, methods and programs can be developed. "The key factors of reading lie in the child and his



interaction with information-providing adults, rather than in the particular materials used" (Smith and Goodman, 1971, p. 177).

### The Framework

The insights provided by psycholinguistic research do suggest requirements for learning to read. One element is the necessity for wide exposure to written language so that significant elements of language can be detected. The teaching of reading should address this and other requirements. Psycholinguists caution here that none of the requirements of learning to read "can be formalized in a prescribed sequence of behaviorally stated objectives, embalmed in a set of instructional materials, programmed or otherwise" (Smith and Goodman, 1971, p. 181).

Because "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 (Goodman, 1973, p. 154), what seems required is a set of reading strategies for sampling, selecting, and deciding. Goodman suggests that these strategies include:

1. effective strategies for selecting the most useful cues from the grapho-phonetic, syntactic, and semantic information.
2. effective strategies for guessing a deep structure so that one may derive meaning.
3. effective strategies for testing guesses.
4. effective strategies for correcting.

To assist the reader towards the development of these strategies might be considered one of the goals of reading instruction. Goodman suggests certain tenets to be observed in the pursuit of these goals. First, "instruction must be comprehension centered" (Goodman, 1973, p. 155). Dissecting language, and sequencing skills is insupportable since these practices fail to appreciate the wholeness and interdependent nature of language systems. Second, the child's language is a major resource as is the language acquisition apparatus which is also possessed. Third, strategies for predicting, sampling, selecting, guessing, confirming, rejecting, correcting, and reprocessing must be specialized for different kinds of reading. Finally, the prior conceptual and experiential backgrounds are important, even essential, to reading and must be considered in instruction.

To go from theory to practice is sometimes difficult. The transition is less problematic when the practitioners thoroughly understand the theory. Y. Goodman and Watson (1977) recommend that "teachers should be able to articulate the program's theoretical base" (p. 868). But even armed with psycholinguistic theory, translating this theory into the practice of teaching reading still raises questions. How does one, using psycholinguistic insight, teach children to read?

Frank Smith (1975) argues that perhaps we need not "teach" reading, at least not explicitly, at all. Smith explains: "It is not necessary that these skills . . . (i.e., prediction of meaning, parsimonious use of visual information) . . . be taught. If he is put in an appropriate learning situation, a child will develop them" (p. 185). Smith

specifies:

A child can only learn to read by reading. Only by reading can a child test his hypothesis about the nature of the reading process, establish distinctive feature sets for words, learn to identify words and meanings with a minimum of visual information and discover how not to overload the brain's information processing capacity and to avoid the bottlenecks of memory (p. 185).

### Specific Learning Situations

Appropriate learning situations have been described more specifically by Niles (1963), Hoskissons (1975), Kohl (1975), Goodman and Watson (1977), and Smith (1973). Niles offers the "directed-reading lesson" as one learning situation. These lessons are divided into three parts, which Niles explains:

. . . it starts with the development of background and purpose. The teacher builds readiness for the new lesson by introducing new vocabulary and concepts and by reviewing materials from previous lessons or from the students' experiences to show them how the new content connects with the old (p. 174).

The teacher also assists pupils in setting purposes for reading. The students skim the text and look at pictures, read headings and review what they already know on the subjects. The students then ask themselves questions like these:

Is this a lesson we can read rapidly or must we study it carefully? Why?

What are some of the things we should try to find out in this lesson? What questions can we anticipate before we read?

How can we use this new information? (p. 174)

The second step of the process is devoted to reading and study which the students do silently. The third step of the process is the

follow-up. In this part, questioning and testing occur.

The learning situation Hoskisson advocates is "assisted-reading." Assisted reading, reading to and with children, can be applied with as much variety as there are needs and children to be assisted. Hoskisson recommends some of the different applications. He suggests, for example, that at the pre-school level assisted reading can take the form of a parent reading frequently to a child "until the child has a love for stories and has developed a long story-attention span" (p. 313). Later the parent can have the child repeat words and sentences. For more experienced readers, assisted reading can be parents supplying unfamiliar words so that there is an uninterrupted story flow. In schools, teachers can have the child read softly after his oral reading of a story. In whatever situation assisted reading is engaged in, it is important to keep in mind that what is to be provided is an opportunity for readers to read. Beginners to advanced readers need opportunities to be involved in reading. Only through reading is it possible that "children can teach themselves to read" (Smith, 1975, p. 186).

Kohl (1975) suggests that the appropriate learning situation is a "print environment in which the students feel knowledgeable and strong" (p. 21). This environment removes one of the problems children seem to face when they begin school: the fact that the "enormous amount of print outside of school . . . as well as their personal efforts to understand print, has little or no relationship to what is called 'learning to read'" (p. 16). Kohl suggests that the classroom be set up using familiar and recognizable words (i.e., labels, cans, boxes,

street signs). A learning situation designed in this way allows students to "draw on their own experiences and take advantage of strengths already developed" (p. 16).

Y. Goodman and Watson (1977) describe an appropriate learning situation as one that is "comprehension-centered." They identify as the primary tenet of a comprehension-centered program, that reading "be functional for the reader" (p. 870). The instructional program advocated by these researchers: "places reading in a proper context; . . . helps students focus on meaning for themselves as readers/thinkers; . . . and is best accomplished by immersion in a total language arts program.

In their total language arts program, reading to children is a daily activity. Children are encouraged to write about experiences. Silent reading of self-selected materials is another part of the program. Instruction in reading strategies is conducted as needed, and there is time for individualized activities which encourage students in "self-regulated inquiry reading" (p. 876).

In summing up this section on teaching from a psycholinguistic perspective, Frank Smith's essay on ways to make learning to read difficult offers an essential precept. After listing the dozen rules for teaching reading, Smith comes to the "one difficult way to make it (reading) easy." He writes:

. . . now I have reached my one difficult rule, the anti-thesis of the twelve easy rules:

Respond to what the child is trying to do.

Obviously, my one rule is difficult. It requires insight, tolerance, sensitivity, and patience; it demands an understanding of the process of reading, a rejection of formulae, less reliance on test, and more receptivity to the child. Its main demand is a total rejection of the ethos of the day--that the answer to all our problems lies in improved method and technology--and of emphasis on method that pervades almost all teacher training (pp. 195-196).

### Psycholinguistic Contributions to Beginning Reading

As Frank Smith suggests in this thirteenth rule: teachers/researchers must "respond to what the child is trying to do." Researchers in beginning reading have often not looked at what the child is trying to do but rather at reading methodology (Bond and Dykstra, 1967); reading "readiness" (Spache, et al., 1966; Horn, 1966); achievement as it compared along ethnic lines (Bordeaux and Shope, 1966; Harris and Serwer, 1966); achievement as it compared along sexual lines (Wyatt, 1966). Mountains of statistics about different reading approaches for different age, sex, and "socioeconomic" groups now exists. But the statistics reveal little about what children can and are trying to do. More recently, researchers have begun to focus on the reading behaviors of children. They have uncovered information important to this study.

Frank Smith (1976), in his case study of a three and one-half year old, discovered that children begin to try to make sense of print almost as soon as they become aware of print in a meaningful way. Torrey (1973) also conducted a case study; her subject was a five-year-old "natural reader." She discovered that exposure to much oral and

written language along with pertinent information being supplied to the child's questions, seemed sufficient to produce this reader. Durkin (1961) had earlier looked at children who read "early," or "natural" readers. She decided that exposure to print and oral language (stories read and reread, television, signs, and labels) and information supplied to the child's questions was a common phenomenon for her subjects.

Marie Clay (1966) and Anne Forrester (1977) looked at school-aged children. Marie Clay looked specifically at the print and language concepts of her subjects. She concluded that in order for children to develop any of the concepts or print conventions, they had to be exposed to books and print. Anne Forrester (1977) looked at children who were being taught to read in a program modeled on the way "natural readers" had acquired their skills. She learned that all the children in this program were reading by its conclusion. The children had also acquired all the skills which reading teachers try to teach in isolation, while they "retained their natural creativity and intuitive language learning skills" (p. 164).

### Miscue Analysis

#### The Procedure

To study the miscues made in oral reading, Kenneth Goodman directed the "development of an analytic taxonomy which considers the relationships between the expected response (ER) and the observed response (OR)

from all possible angles" (Goodman, 1976, p. 6). The taxonomy has been refined through continued research, and a less formal Reading Miscue Inventory (Y. Goodman and C. Burke, 1972) was developed for classroom use. The Reading Miscue Inventory (RMI) focuses on nine aspects of the larger taxonomy.

The taxonomy "enables one to analyze miscues, i.e., each instance where a readers' observed response (O.R.) differs from the expected response (E.R.) in order to observe how the reader is operating with the various kinds of input and to become aware of the strategies he is using" (Goodman, 1969, p. 19). Since the reader uses a variety of information to produce his responses. The taxonomy examines each miscue through a series of questions designed to get at the causes for the response. From the examination, a pattern develops which can be used to get a picture of the processes used by the reader. The questions look at:

- (1) The number of words involved in the miscue;  
e.g., E.R.: or a monkey; O.R.: of monkeys
- (2) The correction attempted
- (3) The frequency of repeated miscues
- (4) Successful identification after repeated miscues
- (5) Influence of peripheral information
- (6) The phenomenon of habitual associations;  
e.g., Substitutions: E.R.: in the pail;  
O.R.: in the bucket; sequential associations:  
E.R.: a happy occasion; O.R.: a happy birthday
- (7) Dialect, as a fact of readers' expected responses
- (8) Graphic similarity



- (9) Phonemic similarity
- (10) Grammatical function of the O.R.  
(Non-words are categorized according to inflectional ending and intonation, or syntactic pattern.)
- (11) If the O.R. can be classified as a function word
- (12) The grammatical function of the E.R.
- (13) If the E.R. can be classified as a function word
- (14-20) The linguistic level of miscue:
- sub-morphemic
  - bound morpheme
  - free morpheme
  - word
  - phrase
  - clause
  - sentence
- (21) Allologs: an alternate form of the word;  
e.g., E.R.: cannot; O.R.: can't  
E.R.: aluminum; O.R.: alunimum
- (22) Bound or combined morphemes (types);  
e.g., drownd/drownded; breakfast\_s/breakfast\_iz
- (23) Syntactic similarity
- (24) Semantic similarity

The classroom version of the miscue analysis taxonomy, The Reading Miscue Inventory, developed by Y. Goodman and Burke, focuses on nine areas: dialect, intonation, graphic similarity, sound similarity, grammatical function, correction, grammatical acceptability, semantic acceptability, and meaning change. These nine areas were selected "because they seem to be most relevant to implications for classroom instruction and diagnosis" (Goodman and Burke, 1972, p. 49). From these nine areas derive questions which are asked of each miscue:

1. Dialect: Is a dialect variation involved in the miscue?
2. Intonation: Is a shift in intonation involved in the miscue?
3. Graphic Similarity: How much does the miscue look like what was expected?
4. Sound Similarity: How much does the miscue sound like what was expected?
5. Grammatical Function: Is the grammatical function of the miscue the same as the grammatical function of the word in the text?
6. Correction: Is the miscue corrected?
7. Grammatical Acceptability: Does the miscue occur in a structure which is grammatically acceptable?
8. Semantic Acceptability: Does the miscue occur in a structure which is semantically acceptable?
9. Meaning Change: Does miscue result in a change in meaning?

These questions help to determine the "effect of all the language cueing systems operating within the reading process" (Goodman and Burke, 1972, p. 49).

The miscue procedure involves six steps:

1. Selection of appropriate material to be read
2. Preparation of material for taping so that the researcher has a typed copy of the material which preserves the lines of the selection and numbers them
3. Audio-taping of the reading while the researcher marks the work sheet
4. The retelling of the story

5. Miscue analysis
6. Study of the patterns of miscues.

Sims (1975) and Goodman (1974) point to comprehension as the element of miscue analysis which makes it uniquely useful for teachers and researchers. Goodman points out that the number of miscues is not an indication of comprehension's occurrence or loss. This view has been the traditional one for oral reading "errors." In miscue analysis, comprehension is measured by the uninterrupted retelling and by the meaning change involved in the miscue. Sims indicates that quality of miscues along with the retelling are taken as measures of comprehension, rather than quantity.

### The Research

The studies which employ miscue analysis are by now fairly numerous. The range of studies is extensive. The studies have looked at beginning readers (Y. Goodman, 1968, 1971), developing readers (Allen, 1969; Burke, 1970; Carlson, 1971), and proficient readers (Page, 1971; Thornton, 1973). Other studies have looked at black dialect (Sims, 1972); non-native speakers of English (Romatowski, 1972); "perceptually handicapped" children (Gutknecht, 1972), and other topics. These studies have contributed both to a fuller understanding of the reading process, and to a refinement of the miscue taxonomy (Goodman, 1976).

Of particular importance to this project is the work done by Yetta Goodman (1968), in which she describes the oral reading behaviors of beginning readers. Goodman used miscue analysis to collect the evidence

and analyze the oral reading behaviors of six young readers over an eleven-month period.

Goodman's evidence indicates that these young readers "draw on syntactic and semantic information almost from the beginning, if they are reading material which is fully formed language" (K. Goodman, 1967, p. 133). Excerpts from the stories read by one of her subjects reveals much about the language of the pre-primers and the reading behavior of this six-year-old.

#### RIDE IN

Run  
Ride in, Sue.

Run  
Ride in here.

Come here  
Here I come, Jimmy.

Can come  
And here I stop.

#### STOP AND GO

Jimmy said, "Come here, Sue.  
                  to  
Look at my toy train.

See it go.

Look at my little <sup>toy</sup> train go."  
 Sue said, "Stop the <sup>toy</sup> train.  
<sup>come</sup>  
 Stop it here, Jimmy."  
 Jimmy said, "I can stop the <sup>toy</sup> train.  
<sup>toy</sup>  
 See the train stop."  
 Sue said, "Look at my <sup>toy</sup> toy.  
<sup>too</sup>  
 It is in the train.  
<sup>toy</sup>  
 See my little red toy, Jimmy.  
<sup>too</sup>  
 It can ride in the train."  
<sup>toy</sup>  
 Jimmy said, "See the train go.  
<sup>toy</sup>  
 Look at it go."  
 Suzie <sup>too</sup>  
 Sue said, "Look at my little red toy.  
<sup>toy</sup>  
 See it go for a train ride."  
 Suzie <sup>too</sup>  
 Sue said, "My little red toy!  
 said <sup>too</sup>  
 Jimmy, my toy is not here.  
<sup>toy</sup>  
 It is not in the train.  
<sup>toy</sup>  
 Stop the train, Jimmy.  
<sup>too</sup>  
 Stop it and look for my toy."

Among other things, what these excerpts reveal is that:

. . . the more advanced story, with its stronger syntax, more fully formed language and increased load of meaning, makes it possible for the child to use her graphic cues more effectively and supplement them with semantic and syntactic information (K. Goodman, 1967).

Goodman's work suggested useful hypotheses to be examined by later research. Those hypotheses of importance to this study are: that the type of miscues of importance to this study are that the type of miscues the beginning reader makes during his reading, changes qualitatively as his reading ability develops; that beginning readers' miscues are cued by a variety of phenomenon including the child's language, the language of the reading material, and the background and experience of the child; that beginning readers bring their understanding of syntax and semantics to the reading task; that the reader's understanding of syntax is of greater influence on his development of reading proficiency; and that dialect miscues do not affect the reading comprehension or reading proficiency of the beginning reader.

### The Application

Educators are beginning to make more classroom and clinical use of miscue analysis. Teacher training and in-service programs have begun to incorporate miscue analysis. Carolyn Burke (1976) outlines a procedure for preparing pre-service elementary reading teachers using miscue analysis, while Ludwig and Stalker (1976) concentrate similar efforts for pre-service secondary teachers. The programs use the miscue procedures and evidence to help students to arrive at a new conceptual framework from which to view reading and reading behavior. Y. Goodman concentrated her efforts on in-service teachers. She describes the model for a three-year in-service training program which delivers the "new" information on the reading process and on miscue analysis methods and insights.

Miscue analysis in the school and clinical setting is providing information and insight about what children are actually doing when they read. It gives educational specialists new ways to assist other teachers (Nieratka, 1976); and all educators criticals ways for evaluating and selecting instructional materials (L. Smith and Lindberg, 1976). A valuable application, discussed by Watson (1976), is the development of strategy lessons.

### Beyond Miscue Analysis--Reading Strategies

Reading strategies are those interactions with written material which are available to the unaided reader (Goodman and Burke, 1972, p. 97).

Reading strategies are the "natural ways by which readers process information when dealing with written language" (Watson, 1976, p. 103). A good indicator of strategies readers use are the repeated miscues. By looking at the repeated miscues of a reader, the examiner is able to determine if a reader is using the graphic/sound cueing system or the grammatical or semantic cueing systems (Goodman and Burke, 1972, p. 99). Goodman and Burke present reading strategies paradigmatically (see Figure 1). The paradigm shows within the language cueing system, i.e., graphophonic, syntactic, and semantic, the strategies that readers seem to possess and over which they seem to exert varying degrees of control.

Once a teacher has a picture of the reader's strengths and weaknesses, he/she can begin to organize lessons and experiences which are directly beneficial and applicable. Watson (1976) gives an example of such a lesson following a miscue analysis of a young boy.

FIGURE 1  
GRID OF READING STRATEGIES

		CONFIRMING		COMPREHENDING
Graphophonic	<p><b>PREDICTING</b></p> <p>I. Uncommon Spelling Patterns                      A. Eye Dialect                      B. Foreign Words and Phrases</p> <p>II. Graphic Variations: Personalized                      A. Print Variations                      B. Format Variations</p> <p>III. Grammatical Function: Word Level                      A. Nouns as Names for People                      B. Nouns as Place Names                      C. Alternative Names                      D. Titles Preceding Names                      E. Varieties of Grammatical Functions</p> <p>IV. Indicators of Direct Speech                      A. Dialogue Carriers: Word Level                      B. Dialogue Carriers: Phrase Level                      C. Omission of Dialogue Carriers</p> <p>V. Complex Grammatical Structures                      A. Phrase Structures                      B. Clause Structures</p> <p>VI. Derivational Bound Morphemes: Personalized</p>	<p>I. Initial, Medial, and Final Graphic Cues: Personalized</p> <p>II. Punctuation                      A. Question Markers                      B. Hyphens                      C. Commas</p> <p>III. Habitual Association                      A. thought/through                      B. then/when; what/that                      C. Varieties of Habitual Associations</p>		
	<p>VII. Relational Words or Phrases                      A. Causal Relations                      B. Contrastive Relations                      C. Time Relations</p> <p>VIII. Negatives                      A. Contractions                      B. Context</p> <p>IX. Style and Mode                      A. Type of Material                      B. Story Line</p> <p>X. Pronoun Antecedents                      A. Male-Female                      B. Varieties of Pronouns</p>	<p>IV. Discriminating Significant from Insignificant Information                      A. Informational Material                      B. Story Material</p> <p>V. Does This Make Sense?                      A. Correction: rethink/reread                      B. Continuing to Read</p> <p>VI. Developing Meaning Through Context                      A. Synonym Substitution                      B. Building New Concepts                      C. Nonword Substitutions: Personalized</p>	<p>I. Developing and Integrating Concepts                      A. In Informational Material                      B. In Story Material</p> <p>II. Developing Theme or Generalization                      A. Through Inferences                      B. Through Comparisons</p> <p>III. Integrating Plot                      A. Organizing Events                      B. Development</p> <p>IV. Integrating Characterization and Setting                      A. Who is Telling the Story?                      B. Getting to Know the Place                      C. Relationship of Characterization and Setting to Action</p> <p>V. Understanding Motive                      A. Inferring Humor and Pathos                      B. Detecting Significant Subtleties                      C. Propaganda or Point of View</p>	
Semantic				
Syntactic				



From the analysis, Watson discovered that her subject had difficulty with pronoun antecedents. The following is the story used to help him with this specific problem:

### MY LITTLE BROTHER AND MY BIG SISTER

Sometimes I get so mad at my little brother and my older sister! They but me to death! Last night my brother took his crayons and scribbled all over my homework paper. Because he messed it up, I had to do the whole thing over again. He is always getting into my things. My big sister is just as bad. She thinks the whole house belongs to her. She washes out her clothes and hangs them all over the bathroom.

Between the two of them, I think I'm going nuts. Sometimes I wish I had never heard of brothers and sisters. Look! She's been in my room again. I can tell because my sweater isn't on the floor where I left it. What nerve! What's this? She left me a note.

Hi,

Billy and I have gone for a walk. He cried all morning because he thought you were mad at him about the homework paper. He is really sorry.

We made some cookies and left them for you in the kitchen.

We love you.

Helen

Gosh, I have a nice brother and a neat sister (Watson, 1976, p. 112).

### Conclusion

The literature included in this review both examines the nature of the reading process and offers alternatives to much of the existing reading instruction. Researchers whose works have been here reviewed, by and large, subscribe to the notion of reading as an active process wherein the reader attempts to reconstruct the message encoded by the writer. Message reconstruction is accomplished via a sampling of the visual display, followed by prediction, then confirmation or rejection of prediction, followed by more sampling. These researchers hold that it is neither possible nor necessary to process all elements of the visual display. Efficient reading is possible when the need for processing the display is reduced. The language system itself reduces much of the need to process by making cues redundantly available. The reader's familiarity with the topic further reduces the need to process. This notion of the reading process can be described as holistic.

Reading instruction which considers the advantages the reader has when whole language is the medium, is the kind of instruction advocated by the contributors to this review. One learns to read, suggest these researchers, to make use of all language cueing systems, only by having all systems available. One learns to read by reading. The project described in the next chapter looks at what beginning readers do when they are confronted with stories both illustrated and conveyed in whole language.

## C H A P T E R   I I I

### METHODOLOGY

#### Introduction

The first two chapters were attempts to articulate the context for the research project which will be described in this chapter. Chapter I defined reading, discussed beginning and proficient reading and looked at the importance, impact and possibility of literacy. An outline of the project and a discussion of issues in beginning reading concluded the first chapter. Chapter II concerned itself with the contributions of psycholinguistics and miscue analysis to the reading process and to reading instruction. Through a review of the literature in psycholinguistics and miscue analysis, what hopefully emerges is a clearer picture of the reading process, language processes involved in reading, reader capabilities, and the instructional strategies required to facilitate reading achievement optimally. In this chapter, the design and procedures of the project on reading strategy development in beginning readers will be described.

#### The Study: Preliminary Considerations

##### Research Questions

This study began with the question of how an interested person

could be of most benefit to a child at the beginning of his learning to read. From this question came several other questions that seemed important to investigate before the answer to the main question would be forthcoming. The questions in general asked: What kinds of things do children learn on their own about reading; what kinds of things are children "taught" in beginning reading instruction; and what kinds of things happen to children during the first year of formal instruction. To examine these general notions, the following research questions were formulated and a research project designed to arrive at some of the answers:

1. What print handling strategies do learners have at the start of formal reading instruction?
2. Are there patterns of strategy use among beginning readers?
3. What strategies are acquired/abandoned during the first year of formal reading?
4. Does there seem to be a pattern for the acquisition and loss of strategies in the group of beginning readers?
5. Does the instructional emphasis seem implicated in the acquisition of strategies?
6. Does the instructional emphasis seem implicated in the attrition of strategies?
7. What patterns of strategy use exist at the end of one year of formal instruction?

### Pilot Study

A study of how children handle print before they are taught to read was conducted in the Fall of 1976 with a group of seven children

ranging in age from three years and nine months to five years and nine months. A description of the procedure and results follows.

The project was carried out in three phases. Part One of the project was designed to get at how the children dealt with print in the environment. The children were taken on a short car trip through the business district of Northampton, Massachusetts. The children were asked to point out the places they knew the names of and their responses were audiotape recorded.

The second phase of the project sought to learn how children responded to two-dimensional print in context. For this part of the experiment, advertisements were taken from magazines and mounted on poster boards. The children were asked to point to and to say the words they recognized. The children's responses were recorded on prepared response sheets.

The last part of the project presented the words from the advertisements in Part Two, in sentences in a context-free form. The children were asked to read the sentences or point out the words that they knew. Audiotape recordings were made of the responses, as well as the responses were marked on the researcher's copy of the sentences.

Participants in this study were members of a Children's Creative Workshop at a nearby college. These children ranged from pre-readers to accomplished readers. All subjects seemed to have a sense of what "reading" was about. When one subject was asked how he knew that a certain sign indicated "Stop," he said he read the sign. Similar responses were given when subjects were queried about their identifications.

It was apparent from the field trip through the business district, that the children were able to accurately identify many words in their environment. Gas stations did not share the same name. They were identified as "Shell," "Hess," and "Mobil." The "Pioneer Bank" was distinguished from the "Nonotuck Savings Bank." The children readily identified places that they had frequented, "McDonald's" and "Burger King," where places like "Texaco" and "Volvo" were not identified. Most subjects were able to identify only those words attached to well-advertised places: "McDonald's," "Burger King," "Shell."

The advertisements mounted on poster boards provided an opportunity to observe the children in another situation involving printed matter. Here again the children identified highly familiar items. The following table presents the most recognized items:

TABLE 1  
MOST RECOGNIZED ITEMS

Product	No. Recognizing
Cheerios	5/5
McDonald's	4/5
Kool-Aid	4/5
Orange Juice	4/5
Burger King	4/5
Coca Cola	4/5
Aim	4/5

Certain miscues seemed to indicate the use of reading strategies rather than simple guessing or memorization. The following miscues:

RICE CRISPIES	for	CORNFLAKES
Coffee	for	MAX PAX
Washing soap	for	TIDE
CREST TOOTHPASTE	for	COLGATE TOOTHPASTE
Make-up	for	AVON
ANACIN	for	EXCEDRIN

indicate the use of context and in some cases context plus visual cues (i.e., CREST for COLGATE).

Part Three of the project made use of all the words in Part Two, but in sentence form. In this section, the lack of context seemed to greatly reduce the number of identifications. The subject who reads already was able to go through the entire list of sentences with a minimum of high quality miscues. The other subjects did not identify the words which they pointed out in Part Two. Rather, these subjects indicated that they could not read or only identified a few of the small words. The absence of context seemed to make a difference in the print handling of most subjects. There are at least two explanations for this phenomenon: (1) that context is essential to word identification for these subjects, or (2) that these subjects' notion of reading does not include the connection between words in the environment and on a printed page.

From this mini-study, the researcher concluded that printed matter which occurs in a rich context, abundantly in the environment, is often

identified by youngsters without formal instruction. Also, strategies for dealing with print seem to develop as a result of the child's attempts to make sense of the world. The child uses the context and the visual cues to eliminate most alternatives before predicting what the print conveys. It would seem that an important aspect of reading instruction should be assisting students in seeing the connections between words and rules that they already know and words and rules in more formal printed matter. Further, reading instruction should take advantage of the child's existing strategies while assisting the child in refining and acquiring new and more efficient strategies. It seems clear that children begin learning to read naturally, and in response to their need to make sense of the environment.

### Research Design and Procedures

Phase I. To answer the questions about the print handling abilities of youngsters at the start of formal instruction, a print reaction exercise was designed and administered. First, children's concepts about print were in part determined using a modification of Marie Clay's Sand Test (1972). Next, the children were asked to "read" the author-designed text, A Walk Through The Neighborhood. If the children were reluctant or said that they were unable to read, the researcher asked open-ended questions like the ones suggested by Yetta Goodman in her Guide to Mini-Research Project. The questions were intended to encourage the child's attempts to process the print. If the children were unable or unwilling to respond to the page, the researcher read



the page to the child and went on to the next. The complete research procedure is included in the Appendix.

The assisted-reading procedure was included to keep children from being discouraged with the task and to help build meaning so that later pages might be responded to.

Each child's oral responses were audiotaped while non-verbal responses were noted on the researcher's work sheet. A sample of the work sheet is included in the Appendix. At the end of the reading, the child was asked to tell what he remembered about the story. This response was also audiotaped.

Phase II. In this phase of the project, the goal was to get an accurate description of the reading programs used in the classrooms of the participants in the project. Through discussions with teachers, and by observing in the classrooms during the reading and language arts instruction periods, and by looking at curriculum guides and the texts used for reading instruction, an attempt was made to particularize the reading programs used at each research site. A Textbook Inventory was developed to analyze the activities of the reading programs prescribed therein in a way that they could be connected with the development of reading strategies. The inventory is adapted from Reading Miscue Inventory (Goodman and Burke, 1972) and the discussion of the four language cue systems in Smith, Goodman, and Meredith (1970). A fuller description of the inventory appears in the section on instrumentation.

Phase III. In this phase of the project, a second print-reaction

observation was made of each child. The exercise used a different author-designed text than was used in Phase I. The text, Let's Play Museum, is included in the Appendix. In this phase of the project, the print-convention awareness of students was examined using a modification of Marie Clay's Sand Test procedures. The part of the exercise concerned with print convention awareness is designated in the research procedure for Phase III. The complete research procedure for Phases I and III is included in the Appendix.

As in Phase I, the subjects are invited to read the text and, if necessary, open-ended questions are asked to encourage responses. When the reading is completed, the subject is asked to tell what he remembers about the story. All oral responses in this session are audiotaped and non-verbal responses are marked on the researcher's work sheet. The work sheet for this phase of the study is included in the Appendix.

#### Research Populations and Sites

The population for this study is beginning readers in their first year of formal instruction in reading in a public school, who have grown up in print abundant environments. The sample selected for this study represents an attempt to achieve as much variety as time and economic constraints would permit. To achieve regional and cultural variation in the sample, two schools in different regions of the United States were selected. One school is located in the Midwest in what would be considered a highly industrialized urban community.

The other school is located in the South in a suburban community with little or light industry. The enrollments of both schools is culturally diverse. The sample includes: African-American children, European-American children, Hispanic-American children, and Southeast Asian-American children. Besides being culturally or ethnically diverse, the enrollments of the two schools are socio-economically varied. The sample population represents different regional, cultural, socio-economic, and therefore experiential backgrounds.

The thirty children in this study range in age from five years and six months to seven years and five months. Included in the study are ten male and twenty female subjects. Eleven of the subjects are from the school at the Midwest site, and nineteen of the subjects are from the school at the Southern site. The study involved five different teachers and five respective classrooms. Only one teacher was involved at the Midwest site, while the other four teachers were involved at the Southern site.

Once the sites and classrooms were selected, subjects were selected at random. At the Southern site, reading instruction begins in either kindergarten or in Grade One. Teachers in the four classes were asked to identify students who had not begun instruction in kindergarten. After this group was established, the selection from the group was random.

## Instrument Design

### Print-Reaction Instruments

The instruments used for both print-reaction phases of this study are author-designed children's books. The decisions about the design of the books were influenced by miscue analysis and psycholinguistic literature. Books which told complete stories were decided on since miscue analysis research suggests that whole stories give the reader the opportunity to build context as he reads. Yetta Goodman (1974) writes:

Longer written material can also provide the necessary context through which students can build concepts as well as become acquainted with stylistic differences. In a sense, reading longer materials is easier than reading words, sentences or paragraphs (p. 70).

Full language rather than "primerese" seemed a productive course. Goodman (in Goodman, 1967) found evidence that beginning readers make use of syntactic and semantic cues if the reading material is "fully formed language" (p. 37). To make certain that the concepts and situations of the selection were understandable to the readers, familiar objects and places in the environment were incorporated. In Book I, A Walk Through The Neighborhood, the most familiar items from the pilot study were included: a McDonald's, a Stop Sign, Cheerios, Coca-Cola.

Both instruments are illustrated to provide a rich context for the language. Kohl (1975) suggests that word recognition is facilitated by rich context. Words are repeated in rich and in less rich

contexts so that there are multiple opportunities to make identification. Print conventions, including punctuation, capitalization, and different word arrangements, are used in both instruments. The second instrument, Let's Play Museum, makes more deliberate use of the print conventions and specific questions are asked about the conventions during Phase III of the study. The questions about print variation and punctuation derive from Marie Clay's Sand Test (1972).

The tables that follow give information about the two instruments. Both instruments are included in the Appendix.

TABLE 2  
CONTENTS OF INSTRUMENT I

Title: <u>A Walk Through The Neighborhood</u>	
No. of Pages . . . . .	14
No. of Words (Total) . . . . .	222
No. of Words (Different) . . . . .	110
No. of Lines . . . . .	30
No. of Sentences . . . . .	24

TABLE 3  
 CONTENTS OF INSTRUMENT II

Title: <u>Let's Play Museum</u>	
No. of Pages . . . . .	13
No. of Words (Total) . . . . .	212
No. of Words (Different) . . . . .	108
No. of Lines . . . . .	46
No. of Sentences . . . . .	22

The two books are comparable in length. They also share comparable and similar vocabularies. The charts that follow indicate the words used in both books and the words used in each separate book.

TABLE 4  
VOCABULARY SHARED BY INSTRUMENTS I AND II

---

---

a	in	she
all	is	sign
and	it	so
asked	mama	the
at	of	they
big	on	things
came	out	very
could	outside	was
go	said	where
had	school	you

---

TABLE 5  
THE VOCABULARY OF INSTRUMENT I

---

about	everything	McDonald's	swings
adds	fall	me	sunny
after	favorite	my	take
are	for	nap	tells
ate	get	neighborhood	that
back	going	next	then
before	hamburger	no	there
block	her	park	through
breakfast	home	places	told
cars	how	played	walk
Cheerios	I	pretty	walked
Coke	if	red	wanted
corner	knows	saw	wasn't
cross	left	sister	we
crossed	life	sleepy	when
down	light	smart	wide
drink	like	smiled	with
eat	looked	stop	would
end	milk	street	your

---



TABLE 6  
THE VOCABULARY OF INSTRUMENT II

---



---

African	drew	Mrs.	shouts
Amia	drop	mud	skyscraper
an	Edwards	museum	some
beautiful	engine	new	spaceship
began	fire	not	splashy
best	\$4.00	old	squishy
brown	giraffe	one	started
Bryan	got	only	their
bus	gray	our	them
but	have	paid	this
butterfly	hear	paper	volkswagon
car	hut	pictures	wall
come	idea	play	walls
crayons	just	proud	well
daddy	let's	puddles	went
did	look	put	were
dollar	made	rained	what's
door	may	really	working
draw	morning	sad	yellow
	Mr.	shout	

---

## Reading Response Inventory

The Reading Response Inventory combines the principles of miscue analysis, the Reading Miscue Inventory (Goodman and Burke, 1972), and the psycholinguistic view of the reading process described by Brooks, Goodman, and Meredith (1970). Miscue analysis and the reading Miscue Inventory begin with the reader's observed responses which differ from the expected responses of the text. A series of questions are asked about each response to determine the language systems involved in producing the response. The Reading Response Inventory derives its questions partly from the miscue analysis taxonomy developed under the direction of K. Goodman (included in Allen and Watson, 1976) and from the discussion of the language cue systems "that operate in reading to cue meaning" (Smith, Goodman, Meredith, 1970, p. 281).

The inventory is divided into six sections. A discussion of those sections follows.

Section I: Print Convention Awareness. This section of the inventory looks at what children know about print. The research procedure uses a modification of Marie Clay's Sand Test. The information derived from this phase of the procedure is recorded on the inventory in Section I. The researcher answers the following questions about the reader's knowledge of print:

- A. Does the reader know letter names?
- B. Does the reader know the directionality of English?
- C. Is the reader aware of variations in print?
- D. Is the reader aware of punctuation conventions?

Section II: Use of Print Conventions. This section of the inventory looks at how children make use of their knowledge of print in making responses. Here the researcher asks questions about letter names, directionality, print variation, and punctuation, to determine how knowledge of print influences the reader's responses. The following questions are asked in this section:

1. Are letter names used in the response?
2. Is directionality observed in the response?
3. Does print variation influence the response?
4. Does punctuation influence the response?

Section III: Use of Graphophonics. This section looks at the similarity or divergence of the response of the reader and text. The questions in this section attempt to determine if attention is paid to the graphophonic cueing system. Further, it attempts to determine if the beginning, middle, or end of the word is attended to. The following questions are asked in this section:

5. Is there graphophonic similarity in the beginning of the OR and the ER?
6. Is there graphophonic similarity in the end of the OR and the ER?
7. Is there graphophonic similarity in the middle of the OR and the ER?
8. Is a non-word produced for the response?

Section IV: Use of Morphology. This section looks at identifiable word parts and affixes. The questions in this section attempt to determine if parts of words are preserved in the response. The questions include:

9. Is the spelling pattern of the ER preserved in the OR?
10. Is the response a free morpheme of the word in the ER? Is the response one of the compound morphemes?
11. Is the response an uninflected free morpheme (e.g., come for came)?
12. Does the response preserve any affix of the ER? Does the response substitute the affix of the ER for another affix to produce the OR?
13. Is the response produced by inserting or adding an affix to the ER?
14. Is the affix of the ER omitted?

Section V: Use of Words. In this section, the intent is to look at how whole words are used by the reader. The questions in this section look at how the reader treats the words in his response. Questions in this section include:

15. Does the reader substitute one word for another in the OR? (Also, does the reader identify words independently?)
16. Does the reader insert words in the OR?
17. Does the reader reverse words in the ER?
18. Does the reader omit words? (These omissions can be unintentional or abandoned attempts to identify words.)

Section VI: Use of Grammatical Structure. This section looks simply at grammatical function. It asks if the OR preserves the grammatical function of the ER. This section is concerned with the grammatical function of the word, the phrase, or clause. The inventory questions for this section are as follows:

19. Does the response preserve the grammatical function of the ER?

a. Does the response sound like language?

b. Does the response make sense?

Section VII: Use of Reader's Experience. The experiences that readers bring to the text often help determine the success of the encounter with print. This section looks at how readers use their experience when interacting with print. The questions ask:

20. Does the reader use his experience to generate his response? (Does the reader simply describe the picture or identify it or does the reader make-up language which corresponds with the illustration?)

21. Does the reader use his experience to predict the response? (Does the reader's response seem influenced by the illustration or some expectation based on the illustration or earlier text?)

22. Does the reader use his experience to confirm his response? (Does the reader, for example, correct responses which seem to conflict with the sense of the situation?)

Section VIII: Use of Illustrations. The illustrations of texts often provide cues which readers use with varying degrees of success and purpose. This section looks at how readers use illustrations in their interactions with the printed page. The following questions are asked in this section:

23. Does the reader use the illustration to generate his response? (Does the reader describe the picture while ignoring the print?)

24. Does the reader use the illustration to predict his response? (Are the illustrations influential in the response?)

25. Does the reader use the illustration to confirm his response? (Is the response corrected, for example, when the response seems inconsistent with the illustration?)

Section IX: The Retelling. This section looks at both patterns of retelling and the mechanisms used to affect the retelling. Retelling pattern questions include:

26. Are the subject's responses in the form of singly identified words?
27. Are the subject's responses mainly identified phrases?
28. Are the subject's responses mainly identified clauses?
29. Is the story sense preserved?

Retelling mechanism questions include:

30. Does the reader mainly rely on his memory? (Does he not look back at the book?)
31. Does the reader mainly rely on words and phrases from the text? (Does the reader reread phrases and then attempt to retell the story?)
32. Does the reader rely mainly on illustrations? (Do the responses in the retelling seem to be more connected to the pictures than the text?)

These thirty-two questions which form the inventory are represented on a coding sheet similar to those used to code miscues in the Reading Miscue Inventory. A sample of the code sheet is included in Appendix D. After the miscues are selected, each is submitted to the thirty-two questions and the appropriate response is marked on the code sheet. If questions can be answered in the affirmative, the box is marked Y. If the answer to the question is negative, the box is

marked N. If the answer is only partially yes, the box is marked P. If the question is inappropriate for the miscue, the box is left blank. Figure 2 is a sample of the coding sheet partially marked for one of the subjects.

After all miscues are coded, each column is evaluated. Since what is being sought here is clear evidence of the existence of certain types of behaviors, columns are considered in terms of the percentage of affirmative marks. If a low percentage of marks appears in the column (less than 50% of the number of miscues coded), the column is marked R (rare or infrequent). If a high percentage of marks appears in the column (more than 50% of the number of miscues coded), the column is marked F (frequent). Partial (P) answers are counted 1/2. The results of each observation of each subject is recorded on the Reading Response Inventory Record Sheet so that comparisons from Phase I and III are easily facilitated. Samples of the Response Code Sheet and Record Sheet are included in the Appendix.

### Textbook Analysis Inventory

Another instrument which was developed in relationship with the Response Inventory is the Textbook Analysis Inventory. As its name suggests, this inventory analyzes the textbooks used at both research sites, for those elements which the Reading Response Inventory looks at. Each text is examined in terms of the areas of the Response Inventory. The level of involvement for each is determined and coded. The coding procedure records the involvement as either major--M,





minor--L, present but not emphasized--P, or absent--0. The columns are evaluated by first assigning values to the letters: M=3, L=2, P=1, 0=0. The emphasis score is found by adding the values in each column. Total emphasis score is found by adding the values in a column for each text employed at a site and dividing by the total score possible. What is arrived at is a likelihood of emphasis score. That is to say that an area receiving a 96 has a 96 percent chance of being emphasized in any given lesson. The coding sheet for this inventory is similar to the Response Record Sheet; both are included in the Appendix.

### Proposed Analysis of Data

#### Question 1: What Print Handling Strategies Do Learners Have at the Start of Formal Reading Instruction?

To answer this question of beginning print handling strategies, the Reading Response Inventory Code and Record Sheets will be examined. Those strategy categories which show evidence of being favored will be identified, and a frequency of the strategy category preferences determined.

#### Question 2: Are There Patterns of Strategy Use Among Beginning Readers?

Individual strategy profiles will be examined to answer the question of similarities in strategy use of beginning readers. An attempt here will be made to identify and describe the patterns of strategy use in the population.

Question 3: What Strategies Are Acquired/  
Abandoned During the First Year of Formal  
Instruction?

To answer this question, it will be necessary to compare Response Records from Phase I and Phase III of the study. The comparison will allow determination of which behaviors seem present at the second observation which were absent in the first, and which behaviors were present in the first observation which are no longer in evidence.

Question 4: Does There Seem to Be a Pattern  
for the Acquisition and the Loss of Strategies  
in the Group of Beginning Readers?

The acquisition patterns for subjects in each group will be examined to determine if the patterns which emerged from the first observation have impact on later acquisition.

Question 5: Does the Instructional Emphasis  
Seem Implicated in the Acquisition of Strategies?

The instructional emphasis of each site will be assessed via a text analysis inventory. The emphasis score for each category will be determined by dividing each combined column score by the total possible for each of that column for all texts used at a particular site. The emphasis will indicate the likelihood of this area receiving emphasis in any given lesson. This likelihood score will be compared with the frequency of occurrence for areas acquired during the course of the year. Of interest here will be those areas which both have high frequency and high likelihood scores. Also, those categories of strategies which enjoy high frequency or high likelihood score but do not enjoy both will be examined.

Question 6: Does the Instructional Emphasis Seem Implicated in the Attrition of Strategies in the Group of Beginning Readers?

Question 6 will be answered following the same method of analysis proposed for Question 5.

Question 7: What Patterns of Strategy Use Exist at the End of One Year of Formal Instruction?

The method of analysis for Question 7 will follow the method employed for Question 1. Observation II will form the basis of the analysis. These data will be examined to determine if detectable patterns exist at the end of one year of formal instruction.

The analysis of the data in terms of these research questions will, it is hoped, shed light on the question of what beginning readers are able to do. That information should assist in determining the direction of beginning reading instruction that will optimally benefit beginners to become proficient readers.

## CHAPTER IV

### RESULTS OF STUDY

#### Lincoln's Tom/b/

(A Short Short Story)

It is not unusual, I am sure, to have in a town an elementary school named for a President. It is certainly not a rare occurrence to have that President be Abraham Lincoln. So to tell you that this story is about a little boy who attends Abraham Lincoln Elementary School is perhaps to indicate that there is something very typical or ordinary about the little boy and the school. There is and there is not something completely ordinary about what happened that day at Abraham Lincoln Elementary. But what happened changed if only slightly the lives of those involved.

The school day had just officially begun. A bell rang and the noises of so many young people were replaced by the sounds of pencil sharpeners, chalk against blackboards, and ladies saying "good morning boys and girls." The principal of Abraham Lincoln Elementary moved about the school in a handsome, dignified, principal-like manner. On a sun-lit stairway landing, the principal noticed one very small boy looking up at the mosaic mural which depicted scenes from the life of Abraham Lincoln. The little boy was so engrossed in the mural he seemed

totally unaware that he was late for class. As Mr. Phillips approached the boy, he recognized him and called his name. The little boy turned away from the mural for a second to see that it was the principal who had called him.

"Mr. Phillips," said the little boy. "See that word right there. I know what that word is."

Mr. Phillips came closer to see what the young boy was talking about.

"That word says tom/b/," the little boy proudly announced. "See that t o m, that's my name, Tom. And teacher said just put a /buh/ on the end of it. So that says Lincoln's tom/buh/.

"Why I believe you are quite right," said Mr. Phillips. "You are a very smart young man. But your teacher must be wondering where her smart pupil is. Is it alright if I walk along with you to your class, Tom?"

"Oh sure, Mr. Phillips. You know, I can read a lot of other stuff. You want to hear me read?"

"I certainly would like that very much," said Mr. Phillips as they walked along to Tom's class.

When the two of them got to Tom's class, Mr. Phillips told the teacher that he had just learned to pronounce tom/b/, and that he was most grateful for this valuable lesson. Stifled smiles passed between principal and teacher that went unnoticed by the class.

Before Mr. Phillips left Tom's class that day, he listened to Tom and the other children in his first-grade class read. The children

were bright and made a special effort to read well for this important man who listened so attentively to their splendid efforts. Later that day, when Mr. Phillips told this story to other colleagues, he remarked about the wisdom of this guileless youngster who obviously loved learning and who had probably taught him more in that moment by the mural than he had learned in all his years of education. "These youngsters have things to teach us," he remarked. "We need to really take the time to listen."

Having learned great respect for the wisdom of young learners, I have embarked upon a project which in many ways makes first graders the teachers. I have attempted to listen to their wisdom and learn from it. Chapter IV is the results of that listening and learning.

### Students as "Teachers"

The thirty first-grade subjects of this study provided the researcher with an enormous amount of information. By their enthusiastic participation in the project, these youngsters demonstrated that they considered reading an activity worth being engaged in. The attempts of these subjects to make sense of the texts revealed much about their sense of reading and much about their use of the language systems. This chapter discusses what these attempts reveal or at least suggest about the reading strategies and the development of reading strategies. The discussion of the results of this study focuses on the seven research questions formulated for this study.

Reading strategies, as earlier discussed, do not exist as a set of "rules" which can be stated as behavioral objectives. They are rather more organic phenomena which are shaped by their users. The assessment of reading strategies is therefore an individualized project. This study looks not so much at the specific strategies of the individual but rather at the categories into which related reading behaviors might fall.

### Assessing "Strategy" Development

Identifying the specific strategies of any reader is a less than perfect exercise. What is possible with response-analysis is that patterns of conduct can be identified. These patterns indicate, in part, the areas of language which seem most influential in the response made by the reader. In this study, the modified miscue analysis procedure likewise allows detection of patterns of language cue system use. Those categories of the Reading Response Inventory cannot be taken to represent specific reading strategies. These categories can be seen to represent a group of related strategies one or more of which are possessed by the reader.

The discussion which follows will be in terms of these categories of strategies rather than in terms of specific strategies exhibited by individual readers. These categories cannot be taken as the only categories for reading behaviors. The organization of the Reading Response Inventory represents only one way to identify and assess the behaviors of readers.

### Population Demographics

Before looking at the evidence on strategy development in beginning readers, it is perhaps useful to look at the demographic data on the research population. The population is drawn from two school sites in different geographical locations. The differences in school sites becomes important in the consideration of instructional emphasis. In most other instances, the population is not divided along any lines external to the research data. The demographic data on age, sex, and ethnicity presented in Table 7 is presented to describe the population. The thirty first-graders participating in this study ranged in age from five years and six months to seven years and five months at the time of the first observations. By the end of the study, the subjects are six months older.



TABLE 7  
DEMOGRAPHIC DATA

Demographics	Subjects	Frequency
Sex	Males	10
	Females	20
-----		
Ethnicity	Afro-American	12
	Asian-American	1
	Euro-American	14
	Hispanic-American	3
-----		
Age Beginning of Study	5.5 - 6.0	3
	6.0 - 7.0	25
	7.0 - 7.5	2
	(Average Age--6.5)	
-----		
Age End of Study	5.5 - 6.0	1
	6.0 - 7.0	15
	7.0 - 8.0	14
	(Average Age--6.11)	

#### Data Analysis

The analysis of reader responses provides the data which will be used to answer the research questions. Examples from the data (the yes answers to the inventory questions) are included here to give a clearer picture of the responses which were in fact analyzed. The observed responses (O.R.) and the expected responses (E.R.) are included.

Section I

1. Are letter names used in the response?

O.R.: a	E.R.: asked
O.R.: a	E.R.: African
O.R.: <u>s o</u>	E.R.: so

2. Is directionality observed in the response?

(Several indications of directionality were observed; i.e., moving finger across page from left to right, and identification of words in left to right order.)

3. Does print variation influence the response?

O.R.: MOMMIE!!!!	E.R.: MAMA!!!! (intonation
O.R.: DAD!!!!	E.R.: DADDY!!!! appropriate)

4. Does punctuation influence the response?

O.R.: This is the best wall of them all Bryan  
(corrected to)  
E.R.: This is the best wall of them all." Bryan

Section II

5. Is there beginning graphophonic similarity?

O.R.: <u>munster</u>	E.R.: <u>museum</u>
O.R.: <u>stuck</u>	E.R.: <u>started</u>
O.R.: <u>something</u>	E.R.: <u>smart</u>

6. Is there end graphophonic similarity?

O.R.: <u>smushy</u>	E.R.: <u>squishy</u>
O.R.: A fur <u>can</u>	E.R.: African <u>can</u>

7. Is there middle graphophonic similarity?

O.R.: <u>seet</u>	E.R.: <u>street</u>
O.R.: <u>cereal</u>	E.R.: <u>cheerios</u>

8. Is a non-word produced?

O.R.: cund	E.R.: could
O.R.: tay	E.R.: they
O.R.: Beran	E.R.: Bryan

Section III

9. Is the spelling pattern preserved?

O.R.: book

E.R.: look

O.R.: down

E.R.: brown

10. Is a free morpheme identified?

O.R.: the

E.R.: they

Is a compound morpheme identified?

O.R.: ham

E.R.: hamburger

O.R.: out

E.R.: outside

11. Is the response the substitution of an uninflected free morpheme?

O.R.: eat

E.R.: ate

O.R.: have

E.R.: had

12. Is the affix preserved?

O.R.: carred

E.R.: crossed

O.R.: bettiful

E.R.: beautifful

Substituted?

O.R.: favored

E.R.: favorite

O.R.: sleeping

E.R.: sleepy

13. Is an affix inserted/added?

O.R.: signed

E.R.: sign

O.R.: raineded

E.R.: rained

14. Is the affix omitted?

O.R.: what

E.R.: what's

O.R.: real

E.R.: really

Section IV

15. Does the reader substitute one word for another?

O.R.: fixing

E.R.: started

O.R.: ambulance

E.R.: African

O.R.: straw

E.R.: hut

Does the reader identify words with a list intonation? (When readers read with a list intonation, it was noted on the response sheet.)

16. Does the reader insert words? Does the reader substitute more than one word for one word?

O.R.: be quiet                      E.R.: beautiful  
O.R.: I am eating                  E.R.: I ate

17. Does the reader reverse words?

O.R.: stop sign that said  
E.R.: sign that said STOP!

18. Does the reader omit words?

O.R.: \_ giraffe                      E.R.: a giraffe  
O.R.: I \_ a \_                        E.R.: I saw a McDonald's

#### Section V

19. Does the response preserve grammatical structure?

(word) O.R.: places                      E.R.: things  
(phrase) O.R.: dunk your milk      E.R.: drink your milk  
(clause) O.R.: Mommie says I have to sleep.  
E.R.: Mama said I had to take a nap.

#### Section VI

20. Does the reader use experience to generate the response? (Does the reader make up language which makes sense in terms of the illustration, for example?)

O.R.: The boy was looking out the window.  
E.R.: It was so pretty and sunny outside that  
I wanted to go for a walk.

21. Does the reader use experience to predict the response? (This category differs from Category 20 in that the response seems a combination of the reader's experience and the print. Category 20 focuses on those responses which bear little resemblance to the print.)

O.R.: stop at the stop sign  
E.R.: red sign that said stop

22. Does the reader use experience to confirm the response? (This category focuses on those corrections which reflect a rejection of response because it fails to make sense.)

paint

O.R.: and started to door

E.R.: and started to draw

note

O.R.: and put a song

E.R.: and put a sign

### Section VII

23. Does the reader use the pictures to generate the response? (This question looks specifically at the responses which seem to be picture identifications with no attempt to process the print or to use experience to produce phrases or clauses.)

O.R.: McDonald's	E.R.: Down the next street I saw a McDonald's.
O.R.: flying saucer	E.R.: a spaceship

24. Does the reader use illustrations to predict?

O.R.: eating breakfast    E.R.: She said we could go  
after breakfast.

25. Does the reader use the illustration to confirm the response?

O.R.: We played on the sw \_ \_ \_ \_ (checks picture)  
          swings

E.R.: We played on the swings.

Each question is asked of each miscue and each question is answered independently. Miscues can and often do have multiple causes. The theoretical assumption of miscue analysis is that miscues are "cued" by the same cueing system that cue expected responses. The purpose of the analysis is to look for evidence of the use of the cueing system which can and do operate more or less simultaneously.

The trends or patterns that emerge from this type of analysis allow the researcher to identify possible reading strategies.

The results of the response analysis is presented and discussed in this chapter. The discussion is organized around the seven research questions formulated for this study.

Question 1: What Print Handling Strategies  
Do Learners Have at the Start of Formal  
Reading Instruction?

The data from Observation I indicates that the beginning readers in this study possess different strategies in different combinations. Some subjects seem to possess few strategies while others seem to possess many. The researcher reported only those categories of strategies which readers demonstrated consistent use in. Some less frequently observed behaviors were eliminated from consideration. The data from Observation I is included in Appendix E in Table 31. This table presents graphically the behaviors of the thirty subjects.

This observation further indicated that the group of beginning readers had their responses influenced by nearly two-thirds of the strategy categories. Table 8 lists the strategy categories and indicates the frequency of its observation in the population. The numbers in this table represent subjects who showed evidence that their responses were cued by the language system represented by the inventory category. For example, the number 22 opposite "directionality" indicates that 22 subjects showed evidence of observing directionality appropriate to the English language.

TABLE 8  
 FREQUENCIES OF STRATEGY CATEGORIES

OBSERVATION I	
Category	Frequency
1. Letter Names	1
2. Directionality	22
3. Print Variation	0
4. Punctuation	0
5. Beginning Graphophonics	14
6. End Graphophonics	7
7. Middle Graphophonics	7
8. Non-Words	7
9. Spelling Patterns	1
10. Free/Compound Morphemes	1
11. Uninflected Free Morphemes	0
12. Preserves/Substitutes Affix	6
13. Inserts/Adds Affix	0
14. Omits Affix	2
15. Substitutes/Identifies Words	18
16. Inserts Words	0
17. Reverses Words	0
18. Omits Words	14
19. GRAMMATICAL FUNCTION	9
20. Generates Using Experience	16
21. Predicts Using Experience	6
22. Conforms Using Experience	2
23. Generates Using Pictures	1
24. Predicts Using Pictures	16
25. Confirms Using Pictures	3
26. Word/Phrase/Clause in Retelling	1
27. Memory for Retelling	8
28. Experience for Retelling	7
29. Illustration for Retelling	8
30. Preserves Story Sense	4

Table 9 rank orders the inventory categories by frequency. Again frequencies represent individual subjects. The information presented in this table would seem to indicate that directionality, word identification/substitution, pictures as predictors and the reader's experience are the most influential strategy categories of beginners. Spelling patterns, pictures alone, morphemic consideration, and letter names have the least influence on the beginner.

Table 10 looks at the retelling patterns of these beginners. Retelling behaviors indicate, in part, the comprehending patterns. Not all beginners retold the selection. Many indicated they did not remember the story or would rather write some of the words from the selection. Of those sixteen subjects participating in the retelling, the preferences are indicated in Table 10. Seven of the subjects gave evidence of only one retelling pattern while eight of the subjects gave evidence of two patterns. One subject seemed to exhibit four different kinds of retelling patterns.



TABLE 9  
 INVENTORY AREAS IN EVIDENCE  
 RANKED BY FREQUENCY

OBSERVATION I		
Code No.	Inventory Area	Frequency
2	Directionality	22
15	Identifies/Substitutes Words	18
24	Predicts Response From Pictures	16
20	Generates Response From Experience	16
5	Beginning Graphophonic Cues	14
18	Omits Words	14
19	Grammatical Function	9
6	End Graphophonic Cues	7
7	Middle Graphophonic Cues	7
8	Produces Non-Words	7
12	Affix Preserved or Substituted	6
21	Predicts Response From Experience	6
22	Confirms Response From Experience	3
25	Confirms Response From Pictures	2
14	Omits Affix	2
23	Generates Response From Pictures	2
9	Spelling Pattern Preserved	1
10	Free/Compound Morpheme Identified	1
1	Letter Names	1

TABLE 10  
RETELLING  
INVENTORY AREAS IN EVIDENCE  
RANKED BY FREQUENCY

OBSERVATION I		
Code No.	Inventory Area	Frequency
27	Relies on Memory	8
29	Relies on Illustration	8
28	Relies on Experience	7
30	Preserves Story Sense/Sequence	4
26	Relies on Words/Phrases/Clauses	1

Question 2: Are There Patterns of Strategy Use Among Beginning Readers?

Using the categories from the Reading Response Inventory as indicators of strategy possession, patterns of strategy use can be determined by looking at the similarities in category preference demonstrated in the population. Table 11 shows the preference patterns of the population. The population seems divided into seven groups. These patterns would seem to indicate that certain categories are often used to the exclusion of others. The patterns suggest further that a continuum from few to many categories exists along which readers are found.

Pattern I subjects tended to prefer using picture cues and their experiences to generate responses. In this group of eight, readers gave responses like these:

O.R.: The boy was looking out the window.

E.R.: It was so pretty and sunny outside that I wanted to go for a walk. (Illustration: Child looking out of a window.)

O.R.: There's a red light; you have to stop.

E.R.: We crossed a wide street at the corner where a light tells you when to stop and when to go. (Illustration: Two children looking at a traffic light.)

Pattern II subjects preferred picture cues and experience in responding to the instruments. These subjects did, however, seem influenced by beginning graphophonic cues. These readers responded in the following ways to the texts:

TABLE 11  
STRATEGY PREFERENCE PATTERNS  
OBSERVATION I

SS.ID.								
LT 1114								
IM 0814								
PC 0818			X	X	X			
HD 0118			X	X	X			
MC 0316								
QL 1026								
TK 0760								
WM 0318								
	Letter Names	1.						
	Directionality	2.	.	.	X	X	X	.
	Print Variation	3.						
	Punctuation	4.						
	Beg. Graphophonics	5.						
	End Graphophonics	6.						
	Mid. Graphophonics	7.						
	Non-Words	8.						
	Spelling Patterns	9.						
	Free/Compound Morphs	10.						
	Uninflect. Free Morphs	11.						
	Preserves/Subs. Affix	12.						
	Inserts/Adds Affix	13.						
	Omits Affix	14.						
	Subs/Id's Words	15.						
	Inserts Words	16.						
	Reverses Words	17.						
	Omits Words	18.						
	GRAMMATICAL FUNCTION	19.						
	Generates, Experience	20.	X	X	X	X	X	X
	Predicts, Experience	21.				X		
	Confirms, Experience	22.						
	Generates, Pictures	23.						
	Predicts, Pictures	24.	X	X	X	X	X	X
	Confirms, Pictures	25.					X	
	Word/Phrase/Clause	26.						
	Memory, Retell	27.						
	Experience, Retell	28.					X	X
	Illustration, Retell	29.					X	X
	Preserves Story Sense	30.						

TABLE 11--Continued

SS. ID.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
GS 0117				X																X				X						
XM 0860		X		X																X				X						
*YN 0426		X		r																r				r						
UM 1220														X				X							X	X				
BN 0322		X												X				X										X		
FL 1240		X												X				X												
CD 1211		X												X				X		X										
NT 0910														X				X		X				X						
SF 0113		X												X				X		X				X	X		X	X		
VD 0722		X			X									X				X								X	X			
GC 0220		X			X									X				X												
IL 9200		X	X						X					X				X							X	X	X			
AS 0127		X			X	X	X	X						X				X								X	X			
HA 0270		X			X	X	X	X					X					X	X								X			
JK 0911		X	X		X	X	X	X				X		X				X									X			
KD 6231		X			X	X	X	X		X				X				X									X			

\*Evidence on this subject too limited to make definite assertions.

TABLE 11 --Continued

30.	X		X	X	X	X	
29.	X						
28.	X						
27.	X		X	X	X	X	
26.							
25.							X
24.	X	X	X	X			X
23.							
22.						X	X
21.	X		X	X			X
20.			X				
19.	X	X	X	X	X	X	
18.	X		X	X			
17.							
16.							
15.	X	X	X	X	X	X	
14.		X					
13.							
12.	X	X			X	X	
11.							
10.							
9.							
8.		X	X				X
7.				X	X	X	
6.					X	X	
5.	X	X	X	X	X	X	
4.							
3.							
2.	X	X	X	X	X	X	
1.							
SS.ID.	OD 0429	ET 0160	DA 1024	ZK 1118	RL 1120	JG 0818	

O.R.: Well the stop sign says stop.

E.R.: We looked out for cars and then we crossed the street. (Illustration: Car near a stop sign.)

O.R.: Where is it at.

E.R.: We walked through the park and then we walked back home. (Illustration: Two children walking past a park.)

Pattern III subjects tended to identify or match, substitute, or omit words from the response. These subjects read in what would be described as list intonation. When these subjects were unable to provide themselves with a satisfactory rendition of a word, they omitted it. In this group of readers, responses like the following were recorded.

O.R.: We/to a/sister/I/go/in/the/we/snow/

E.R.: We came to a school. My sister said I would go there in the fall. We played on the swings before we left.

O.R.: We/go/a/I/cereal/my to/

E.R.: She said we could go after breakfast. I ate Cheerios. They are my favorite things to eat.

Pattern IV subjects seemed to combine word identification (substitutions or omission) with picture cues and experience. The substitutions of words by these readers seemed influenced by the illustration. The readers in this group often vacillated between word identifications and use of experience and the illustrations to make responses. These subjects made some of the following responses:

O.R.: They eat cereal. I like cereos.

E.R.: She said we could go after breakfast. I  
ate Cheerios.

O.R.: I see a stop sign that said stop.

E.R.: I saw a big red sign that said STOP.

The fifth group of readers combined word identification (substitution or omission) with graphophonic cues, and in some instances morphemic cues. Pattern V subjects produced responses like those that follow:

O.R.: We cat table and sandy

E.R.: We came to a school.

O.R.: I can go.

E.R.: I like going.

The Pattern VI group tended to use graphophonic cues to the extent that non-words were often produced. These subjects also identified (substituted or omitted) words. The responses produced by this group of subjects present an interesting mixture of non-words, substituted words, omitted words, and successfully identified words. The responses below give an indication of the types of reading conduct displayed by readers in this group:

O.R.: We/lugged/out/for/cars/an/d/the/n/we/cored/the/  
sate/

E.R.: We looked out for cars and then we crossed the  
street.

O.R.: We/like/out/for cars and/then/we/code/the/  
sut/

E.R.: We looked out for cars and then we crossed the  
street.



Pattern VII subjects displayed preferences in all language areas (i.e., graphophonic, morphemic, word, grammatical, experiential, and extra-lingual). This group included the more fluent readers in the group. Their miscues indicate attention to multiple cues in the language system. Examples of the responses made by readers in this group appear below:

O.R.: We came to a playground.

E.R.: We came to a school. (Illustration: School and playground.)

O.R.: Mama said I have to take my nap.

E.R.: Mama said I had to take a nap.

The patterns of strategy preferences may indeed suggest groupings for instruction around strategy lessons rather than by other grouping formulas. In the final chapter of this dissertation, the implications of the data about strategy preference patterns among readers will be further explored.

### Question 3: What Strategies Are Acquired/Abandoned During the First Year of Formal Reading Instruction?

For this question, Observation I is compared with Observation II to ascertain the gains and losses in category preferences. Table 39, included in Appendix E, presents the data from these two observations and indicates the acquisitions and losses for each subject and for each category. Totals from each category column provide the frequency of acquisition and loss for each category. Here again frequencies indicate the number of subjects having acquired or abandoned a strategy category.

The data presented in Table 12 reveals that nearly one-half of the strategy categories become evident in some of the subjects in the second observation. Subjects who showed little or no evidence of category preference for graphophonic cues, morphemic or grammatical cues, for example, acquired preferences for these categories by the second observation. Table 12 rank orders the categories acquired by the population.

Abandoned strategy categories are also revealed in the comparison of Observation I with Observation II. About one-third of the strategy categories are abandoned by some subjects by the time of the second observation. Table 13 rank orders the categories abandoned during this first year of formal reading instruction.

TABLE 12  
 STRATEGY CATEGORIES ACQUIRED DURING  
 FIRST YEAR OF FORMAL INSTRUCTION

Code No.	Strategy Categories	Frequency
7	Use of Middle Graphophonic Cues	17
12	Affix Preserved or Substituted	14
19	Grammatical Function	14
5	Beginning Graphophonic Cues	14
6	End Graphophonic Cues	13
15	Identifies/Substitutes Words	9
8	Produces Non-Words	6
14	Omission of Affix	2
18	Omission of Words	2
25	Confirmation of Response From Picture	2
2	Directionality	1
3	Print Variation	1
4	Punctuation	1
10	Free/Compound Morpheme Identification	1

TABLE 13  
 STRATEGY CATEGORIES ABANDONED DURING  
 FIRST YEAR OF FORMAL INSTRUCTION

OBSERVATION I		
Code No.	Strategy Categories	Frequency
20	Generates Responses From Experience	11
18	Omits Words	8
24	Predicts Responses From Pictures	8
21	Predicts Responses From Experience	5
8	Produces Non-Words	2
25	Confirms Responses From Pictures	2
6	Uses End Graphophonic Cues	1
7	Uses Middle Graphophonic Cues	1
14	Omits Affixes	1
19	Uses Grammatical Function	1
23	Generates Responses From Pictures	1

Question 4: Does There Seem to Be a Pattern for the Acquisition and Loss of Strategies in the Group of Beginning Readers?

The patterns which emerged in the first observation provided the conceptual framework for looking at patterns of acquisition and attrition. Tables 14 to 20 present the acquisition/loss data.

Table 14 presents the acquisition/loss data for Pattern I subjects. This group of subjects tended to lose their dependence on pictures and experience and tended to acquire graphophonic, morphemic and word strategy categories. As these subjects became involved with the words and letters of the text, they seemed to ignore the illustrations. Since half of the subjects in this group began to produce non-words by the second observation, it seems all the more obvious that experience is less an influence than at the time of the first observation.

Table 15 records the acquisition/loss data on the Pattern II subjects. The subjects in this group in a similar fashion to those in Group I tended to abandon their use of pictures and experience in favor of graphophonic, word, and in this group grammatical cues.

Table 16 is a presentation of the acquisition/loss data on the Pattern III subjects. This group lost few strategy categories, but acquired graphophonic and morphemic strategy categories. One reader in this group neither acquired nor lost strategies from the first observation.

Table 17 includes the acquisition/loss data on the Pattern IV group. This group acquired graphophonic, and morphemic, and grammatical structure, strategy categories. These subjects tended to lose experience



TABLE 15  
ACQUISITION/LOSS PATTERNS  
GROUP II

Preserves Story Sense	30.			
Illustration, Retell	29.			
Experience, Retell	28.			
Memory, Retell	27.			
Word/Phrase/Clause	26.			
Confirms, Pictures	25.			A
Predicts, Pictures	24.	L	L	L
Generates, Pictures	23.	L		A
Confirms, Experience	22.			
Predicts, Experience	21.			
Generates, Experience	20.	L	L	A
GRAMMATICAL FUNCTION	19.	A	A	A
Omits Words	18.			A
Reverses Words	17.			
Inserts Words	16.			
Subs/Id's Words	15.	A	A	A
Omits Affix	14.			
Inserts/Adds Affix	13.			
Preserves/Subs. Affix	12.			
Uninflect. Free Morphs	11.			
Free/Compound Morphs	10.			
Spelling Patterns	9.			
Non-Words	8.			
Mid. Graphophonics	7.	A	A	A
End Graphophonics	6.			
Beg. Graphophonics	5.			A
Punctuation	4.			
Print Variation	3.			
Directionality	2.			
Letter Names	1.			
SS.ID.				
		GS 0117		
		XM 0860		
		YN 0426		

TABLE 16  
ACQUISITION/LOSS PATTERNS  
GROUP III

Preserves Story Sense	30.			
Illustration, Retell	29.			
Experience, Retell	28.			
Memory, Retell	27.			L
Word/Phrase/Clause	26.	A		
Confirms, Pictures	25.			
Predicts, Pictures	24.			
Generates, Pictures	23.			
Confirms, Experience	22.			
Predicts, Experience	21.			
Generates, Experience	20.			A A
GRAMMATICAL FUNCTION	19.	A	A	
Omits Words	18.			
Reverses Words	17.			L
Inserts Words	16.			
Subs/Id's Words	15.			A A
Omits Affix	14.			A A
Inserts/Adds Affix	13.			
Preserves/Subs. Affix	12.	A	A	
Uninflect. Free Morphs	11.			
Free/Compound Morphs	10.			
Spelling Patterns	9.			
Non-Words	8.			A A
Mid. Graphophonics	7.	A A	A A	
End Graphophonics	6.	A A	A A	
Beg. Graphophonics	5.	A A	A A	
Punctuation	4.			
Print Variation	3.			
Directionality	2.			
Letter Names	1.			
SS.ID.				
UM 1220				
BN 0322				
FL 1240				



TABLE 17  
ACQUISITION/LOSS PATTERNS  
GROUP IV

Preserves Story Sense	30.				
Illustration, Retell	29.				
Experience, Retell	28.				
Memory, Retell	27.				L
Word/Phrase/Clause	26.				
Confirms, Pictures	25.				
Predicts, Pictures	24.			L	
Generates, Pictures	23.				
Confirms, Experience	22.				
Predicts, Experience	21.	L			L
Generates, Experience	20.		L		
GRAMMATICAL FUNCTION	19.	A	A		
Omits Words	18.	L	L		
Reverses Words	17.				
Inserts Words	16.				
Subs/Id's Words	15.				
Omits Affix	14.				
Inserts/Adds Affix	13.				
Preserves/Subs. Affix	12.	A	A		
Uninflect. Free Morphs	11.				
Free/Compound Morphs	10.				
Spelling Patterns	9.				
Non-Words	8.				
Mid. Graphophonics	7.	A			A
End Graphophonics	6.				A
Beg. Graphophonics	5.	A	A		A
Punctuation	4.				
Print Variation	3.				
Directionality	2.		A		
Letter Names	1.				
SS.ID.					
CD 1211					
NT 0910					
SF 0113					

and picture strategy categories.

Table 18 presents the acquisition and loss data on the Pattern V group of subjects. This group lost the preference for omitting words and acquired graphophonic and morphemic strategy categories.

Table 19 presents the data on the acquisition and loss of strategy categories for the group of subjects who tended to prefer graphophonic strategies in Observation I. This group showed little consistency in loss or acquisition of strategy categories.

Table 20 presents the data on the acquisition and loss. Group VII subjects tended to acquire missing graphophonic, morphemic strategies, while abandoning word omissions and experience-generated responses.

All groups, except the group that already was strongly influenced by graphophonic cues, tended to acquire strategy categories in the graphophonic area. Attention to affixes and grammatical structure were two other strategy categories acquired in most groups.

#### Question 5: Does the Instructional Emphasis Seem Implicated in the Acquisition of Strategies?

Instructional emphasis, as determined by the Textbook Analysis Inventory, does indeed seem implicated in the acquisition of strategies for the group of students at the Beta Elementary School site. Instructional emphasis scores are determined by taking the total for each category column, for each text used at a site, combining the totals for each category and dividing by the total possible for the categories. The resulting percentages can be considered the likelihood of emphasis for a given instructional area. If, for example, "beginning graphophonic

TABLE 18  
ACQUISITION/LOSS PATTERNS  
GROUP V

Preserves Story Sense	30.			
Illustration, Retell	29.			L
Experience, Retell	28.			L L
Memory, Retell	27.			A L L
Word/Phrase/Clause	26.			
Confirms, Pictures	25.		A	
Predicts, Pictures	24.			
Generates, Pictures	23.			
Confirms, Experience	22.			
Predicts, Experience	21.			
Generates, Experience	20.			
GRAMMATICAL FUNCTION	19.		A	
Omits Words	18.	L	L	L
Reverses Words	17.			
Inserts Words	16.			
Subs/Id's Words	15.			
Omits Affix	14.			
Inserts/Adds Affix	13.			
Preserves/Subs. Affix	12.	A	A	A
Uninflect. Free Morphs	11.			
Free/Compound Morphs	10.			
Spelling Patterns	9.			
Non-Words	8.		A	A
Mid. Graphophonics	7.	A	A	A
End Graphophonics	6.	A	A	
Beg. Graphophonics	5.			
Punctuation	4.			
Print Variation	3.			
Directionality	2.			
Letter Names	1.			
SS. ID.				
	VD 0722			
	GC 0220			
	IL 9200			

TABLE 19  
ACQUISITION/LOSS PATTERN  
GROUP VI

Preserves Story Sense	30.				A
Illustration, Retell	29.	A	L	L	
Experience, Retell	28.	A	L	L	A
Memory, Retell	27.	A			L
Word/Phrase/Clause	26.				
Confirms, Pictures	25.				
Predicts, Pictures	24.				A
Generates, Pictures	23.				
Confirms, Experience	22.				
Predicts, Experience	21.				
Generates, Experience	20.				A
GRAMMATICAL FUNCTION	19.	A			
Omits Words	18.			L	
Reverses Words	17.				
Inserts Words	16.				
Subs/Id's Words	15.				
Omits Affix	14.			L	
Inserts/Adds Affix	13.				
Preserves/Subs. Affix	12.	A	A		
Uninflect. Free Morphs	11.				
Free/Compound Morphs	10.				L
Spelling Patterns	9.				
Non-Words	8.	L			
Mid. Graphophonics	7.				
End Graphophonics	6.				L
Beg. Graphophonics	5.				L
Punctuation	4.				
Print Variation	3.				
Directionality	2.				
Letter Names	1.				
SS.ID.					
AS	0127				
HA	0270				
JK	0911				
KD	6231				

TABLE 20  
ACQUISITION/LOSS PATTERNS  
GROUP VII

SS. ID.								
OD 0429								
DA 1024								
ET 0160								
ZK 1118								
RL 1120								
JG 0818								
	Letter Names	1.						A A
	Directionality	2.						
	Print Variation	3.						
	Punctuation	4.						
	Beg. Graphophonics	5.	A					
	End Graphophonics	6.	A A	A A	A A	A		
	Mid. Graphophonics	7.	A A	A A	A A			L
	Non-Words	8.						
	Spelling Patterns	9.				A		
	Free/Compound Morphs	10.					A	
	Uninflect. Free Morphs	11.						A
	Preserves/Subs. Affix	12.						
	Inserts/Adds Affix	13.					L	
	Omits Affix	14.	A					
	Subs/Id's Words	15.					L	
	Inserts Words	16.						
	Reverses Words	17.						
	Omits Words	18.		L				
	GRAMMATICAL FUNCTION	19.					A	
	Generates, Experience	20.		L	L	L	L	
	Predicts, Experience	21.	L	L				A
	Confirms, Experience	22.			A			
	Generates, Pictures	23.						
	Predicts, Pictures	24.					L	L
	Confirms, Pictures	25.					A	
	Word/Phrase/Clause	26.						
	Memory, Retell	27.						
	Experience, Retell	28.						
	Illustration, Retell	29.						
	Preserves Story Sense	30.						

cues" has a 96% likelihood score, that would indicate that in any lesson "beginning graphophonic cues" would have a 96% chance of being emphasized. Ten of the twelve categories which received high instructional emphasis were categories also acquired by students at this site. The two categories which received high emphasis but were not manifested as acquisitions of this group were categories "(25) Confirming Responses Using Pictures," and "(3) Print Variations." Only two of the categories receiving low instructional emphasis were categories acquired by these readers--Category "(20) Generating Responses Using Experience," and Category "(12) Preserving/Substituting Affixes." Similarly, two of those categories enjoying no emphasis were acquired by readers in this group--Category "(8) Producing Non-Words," and Category "(14) Omitting affixes." Table 21 presents the strategy categories, rank ordered by instructional emphasis scores. This table also indicates the Frequency of acquisition of each category for the Beta Elementary School group. Instructional emphasis data on the textbooks used at the Beta site are included in Appendix F, Tables 32, 33, and 34.

Evidence on instructional emphasis and acquisition at the Gamma Elementary School site is less conclusive than that on the students at the Beta site. As the data presented in Table 22 indicates, acquisition of strategy categories occurs whether there is high, low, or no instructional emphasis. More instances of acquisition are recorded for categories receiving high instructional emphasis--forty-five instances are recorded in the high emphasis areas, compared to twenty-nine instances in the low emphasis areas, and nine instances in the

TABLE 21  
INSTRUCTIONAL EMPHASIS COMPARED WITH  
ACQUISITION FREQUENCY

BETA SITE				
Number		Strategy Category	Emphasis	F
H	5	Beginning Graphophonics	96	3
I	15	Identifying/Substituting Words	86	3
G	25	Confirming With Pictures	78	0
H	19	Grammatical Function	76	7
E	9	Spelling Patterns	70	1
M	23	Generating Response Using Pictures	59	1
P	3	Print Variation	57	0
H	2	Directionality	55	3
A	7	Middle Graphophonics	55	3
S	6	End Graphophonics	51	3
I	28	Experience, Story (Retelling)	51	2
S	29	Pictures, Story (Retelling)	51	1
L	20	Generating Responses, Experience	47	1
O	16	Inserting/Adding Words	45	0
W	1	Letter Names	45	0
E	4	Punctuation	41	0
M	13	Inserting/Adding Affixes	35	0
P	10	Free/Compound Morphemes	33	0
H	21	Predicting Using Experience	29	0
A	22	Confirming Using Experience	27	0
S	12	Preserving/Substituting Affix	25	1
I	30	Story Sequencing	12	0
S				
E	8	Non-Words	0	1
N	M	Uninflected Free Morphemes	0	0
O	P	Omitting Affixes	0	1
H	17	Reversing Word Order	0	0
A	18	Omitting Words	0	0
S	24	Predicting Using Pictures	0	0
I				
S				

TABLE 22  
INSTRUCTIONAL EMPHASIS COMPARED WITH  
ACQUISITION FREQUENCY

GAMMA SITE			
Number	Strategy Category	Emphasis	F
H 2	Directionality	100	3
I 5	Beginning Graphophonics	96	10
G 15	Identifies/Substitutes Words	94	8
H 19	Grammatical Function	89	7
E 20	Generates Responses, Experience	83	1
M 16	Inserting/Adding Words	83	0
P 9	Spelling Patterns	78	0
H 25	Confirms Responses, Pictures	78	5
A 29	Pictures, Story (Retelling)	72	1
S 6	End Graphophonics	52	9
I 23	Generates Responses, Pictures	50	1
S 24	Predicts Responses, Pictures	50	0
L 3	Print Variation	48	1
O 4	Punctuation	44	1
W 30	Story Sequencing	44	1
E 1	Letter Names	33	0
M 22	Confirms Using Pictures	33	3
P 12	Preserve/Substitute Affix	31	9
H 13	Inserting/Adding Affix	28	0
A 21	Predicts Responses, Experience	17	1
S 7	Middle Graphophonics	5	12
I 10	Free/Compound Morphemes	5	1
E 8	Non-Words	0	5
N M 11	Uninflected Free Morphemes	0	0
O P 14	Omitting Affixes	0	1
H 17	Reversing Word Order	0	0
A 18	Omitting Words	0	3
S 28	Experience, Story Retelling	0	0
I			
S			



no emphasis areas. Since the high emphasis areas account for the largest number of acquisitions, it seems that instruction is implicated. Other factors, as well, likely have impact on the acquisition of strategy categories. Included in Appendix F, Tables 35 to 38, are the instructional emphasis data for the Gamma site.

Question 6: Does the Instructional Emphasis Seem Implicated in the Attrition of Strategies?

The question of whether the instructional emphasis is implicated in the loss of strategies is one which has few direct answers in the data. Acquisition of some strategies may be partly responsible for the abandonment of others. This phenomenon might then suggest that certain instructional practices cause, for example, a particular attrition/loss pattern. Gaining graphophonic strategies may, temporarily, cause the loss of picture and experience strategies and the acquisition of non-word production.

The data presented in Table 23 indicates that in general the abandoned strategies were in categories that received minor-negligible or no emphasis. More than half of the categories abandoned fall in the areas of low or no emphasis.

There are interesting exceptions to the abandonment-low emphasis pattern. Table 24 presents the data on those strategy categories abandoned in the Beta Elementary School group which received high instructional emphasis.

These exceptions may well be explained as decisions individual readers made to abandon strategy categories because they received

TABLE 23  
LOSS COMPARED WITH LOW OR NO EMPHASIS

BETA SITE			
Number	Strategy Category	Frequency	Emphasis
18	Omits Words	4	0
14	Omits Affixes	2	0
20	Generates Responses, Experience	2	47
24	Predicts Responses, Pictures	2	0
1	Letter Names	1	45
8	Produces Non-Words	1	0
10	Free/Compound Morphemes	1	33
21	Predicts Responses, Experience	1	29

TABLE 24  
LOSS COMPARED WITH HIGH EMPHASIS

BETA SITE			
Number	Strategy Category	Frequency	Emphasis
26	Experience, Story (Retelling)	2	51
27	Pictures, Story (Retelling)	2	51
6	End Graphophonic Cues	1	51
7	Middle Graphophonic Cues	1	55
23	Generates Response, Pictures	1	59

information that other strategies were more productive. Or the new strategies may be more in keeping with the new concept of reading now held by the reader. The use of pictures to generate responses, for example, might have been abandoned in spite of the instructional emphasis when the reader began to focus on print as the major or perhaps only cue to meaning.

Instructional emphasis seems only incidentally involved in the strategy attrition demonstrated by the readers at the Gamma Elementary School site. Table 25 presents the attrition/emphasis data from this group. These data seem to suggest that attrition is for this group, not necessarily related to instructional emphasis. Attrition occurs where there is no emphasis, low emphasis, as well as high emphasis. Strategy attrition and strategy acquisition seem influenced by factors both inside and outside the instructional framework. What these factors may be is a subject for further research.

The final question formulated for this research project concerns the patterns of strategy use found in the group of readers at the end of the study. Many readers acquire new ways of coping with print during the first year of formal instruction. Other readers sustain patterns held earlier. The analysis of the data for Question Seven reveals interesting information about the beginning reader after a year.

TABLE 25  
LOSS COMPARED WITH TEXT EMPHASIS

GAMMA SITE			
Number	Strategy Category	Frequency	Emphasis
24	Predicts Response, Pictures	9	50
20	Generates Response, Experience	9	85
18	Omits Words	6	52
21	Predicts Response, Experience	5	17
25	Confirms Response, Pictures	2	78
8	Produces Non-Words	1	0

Question 7: What Patterns of Strategy Use  
Exist at the End of One Year of Formal  
Reading Instruction?

Looking at Category Preferences at the end of one year of formal instruction is revealing. There seems to be a shift away from picture-experience reactions to print in favor of graphophonic/word strategy patterns. Fewer preference pattern groups exist at this observation than were observed at the first. Readers now seem to form five groups when strategy preferences are considered.

Table 26 records the behaviors of the group of readers who seemed to resist the move toward graphophonics. This group of readers sustained or acquired word identification or substitution behaviors. The reader who used picture cues to predict responses continued to attend to this cueing system. The reader who omitted unfamiliar words continued this practice.

Table 27 looks at the second pattern of reading behaviors. This group tended to acquire some graphophonic and word identification strategies. They tended to produce graphophonically cued non-words, or graphophonically similar substitutions for the expected word. In this group of readers, there are few who attend to picture cues or who rely on experience for their responses. Typically, this group made the following responses:

O.R.: Bean/dwā/on/afodo/hōt,/a staystar/and a butterfly.

E.R.: Bryan drew an African hut, a skyscraper, and a butterfly.

TABLE 26  
 PATTERNS OF STRATEGY USE AT END OF STUDY  
 GROUP A

Preserves Story Sense	30.		
Illustration, Retell	29.	A	S
Experience, Retell	28.	A	
Memory, Retell	27.		
Word/Phrase/Clause	26.		
Confirms, Pictures	25.		
Predicts, Pictures	24.	S	
Generates, Pictures	23.		
Confirms, Experience	22.		
Predicts, Experience	21.		
Generates, Experience	20.	S	
GRAMMATICAL FUNCTION	19.		
Omits Words	18.		S
Reverses Words	17.		
Inserts Words	16.		
Subs/Id's Words	15.	A	S
Omits Affix	14.		
Inserts/Adds Affix	13.		
Preserves/Subs. Affix	12.		
Uninflect. Free Morphs	11.		
Free/Compound Morphs	10.		
Spelling Patterns	9.		
Non-Words	8.		
Mid. Graphophonics	7.		
End Graphophonics	6.		
Beg. Graphophonics	5.		
Punctuation	4.		
Print Variation	3.		
Directionality	2.		
Letter Names	1.		
SS.ID.			
LT 1114			
UM 1220			





O.R.: I/will/then/house/o/tie

E.R.: . . . is where they have old things

The next group of readers added to their use of graphophonic and word identification/substitution strategies, attention to grammatical structure. Non-words are rarely produced by readers in this group and there is evidence that picture and experience cues continue to be used. Table 28 presents the data on the behaviors exhibited by readers in this group. The responses included below are examples of those made by the readers who share the strategies described above:

O.R.: Edward/painted/and/g/iraf/a automobile/and saucer/and yellow busses.

E.R.: Amia drew a giraffe and a volkswagon, a space ship and a yellow school bus.

O.R.: It/rained/big/green/showers.

E.R.: It rained big gray drops.

The readers who make up the fourth group attended similarly to graphophonic cues and grammatical function cues. They also identified or substituted words when responding to print. When unfamiliar words were attempted by these readers, the response retained the grammatical characteristics of the word (i.e., the carons, for the crayons) but were very often non-words. Responses typical of readers in this group include:

O.R.: So they got out the carons and the pepar and strayed to draw.

E.R.: So they got out the crayons and the paper and started to draw.



O.R.: It made big speshy puddles and drown pishy mud.

E.R.: It made big splashy puddles and brown squishy mud.

Table 29 presents the data on the readers in this group.

The final group of readers used graphophonic strategies but rarely produced non-words. Grammatical function seemed more influential for this group than for the former group of readers. Group V readers tended to omit or substitute words, rather than produce non-words. Readers in this group most often preserved story intonation patterns.

Responses made by these readers included:

O.R.: Let's play magic.

E.R.: Let's play museum.

O.R.: They put the papers on the walls/they put a sign on the door.

E.R.: They put the pictures on the walls and put a sign on the door.

The data on the strategy categories possessed by readers in this group are presented in Table 30.

The five preference patterns that emerged by the end of the study are formed by the movement of subjects from one preference pattern to another. It is interesting to note that some subjects exhibiting similar behaviors at the first observation behave quite dissimilarly by the second observation. Subjects who found themselves in Group I at the first observation, could be found in all five groups by the end of the study. Group II subjects at the first observation, on the other hand, behaved similarly at the second observation. These subjects all were



TABLE 30

PATTERNS OF STRATEGY USE AT END OF STUDY  
GROUP E

SS. ID.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.
AS 0127	S	S										A							A											
BN 0322	S	S										A							A											
OD 0429	S	S										S							S											
PC 0818	S	S										A							S											
RL 1120	S	S										S							S											
SF 0113	S	S										S							S											
ZK 1118	S	S										A							S											
GC 0220	S	S										A							S											
JG 0818	S	S										S							S											

found in Group III by the end of the study. Subjects who in the first observation were in Group III each had adopted different patterns by the end of the study. These subjects could be found in Groups I, IV and V, at the time of the second observation. Group IV subjects could be found in Groups III and IV by the second observation. And Group V subjects are found in Groups II, IV and V by the second observation. Similarly, readers in the sixth group at the time of the first observation could be found in Groups II, IV and V by the end of the study. Group VII subjects became a part of Groups IV and V only by the end of the study.

These data would seem to suggest that preference patterns are far from rigid behavior patterns. The data suggests further that these patterns are anything but reliable predictors of changes which subjects are likely to make. A secondary factor which these data speak to is the impact of age on preference patternings. There seems to be no evidence to suggest that age is significant to strategy category preference.

### Beginning Readers' Notions of Reading

The fact that these beginning readers can be grouped by the similarities in their response behaviors suggests something also about these youngsters' notions about reading. Groupings may also be possible around the apparent perceptions the readers share about the nature of the reading task. From Observation I, the first group of eight readers seem to assume that reading involved language which was generated from

the interaction with the printed medium. Even as this group of readers seemed clear that language got generated from the story source, they seemed not to connect this language with the print. Rather, they seemed convinced that the illustration was the source of the message.

First Observation, Group II readers seemed to share a notion of reading that placed the burden of the message in the illustration. These readers seemed to understand, however, that the print should be at least partially attended to. The readers in this group appeared to begin to process the print but then to abandon the print in favor of the illustrations.

Readers forming the third group at the time of the first observation appeared to consider reading a process of word matching or identification. These readers, when unable to match, identify, or substitute words, omitted those words from the response. Readers forming the fourth group, at the time of the first observation, considered reading to involve word matching and identification also. These readers, however, did seem to feel that picture cues might also need to be considered. These readers vacillated between processing the illustrations and identifying, matching, or substituting words in the text.

The fifth group of readers from the first observation seemed to think reading an activity involving word identification, matching, as well as graphophonemic processing. Letters, sounds, and words seemed to be elements which these readers considered when the task was reading.

Reading, for the sixth group of readers, seemed to be an exercise in graphophonic processing. This group attends almost exclusively to the graphophonic cueing system. Matching and/or identifying words seemed a small concern for these readers. The production of non-words, however, would seem to suggest that sound-symbol matching figured more prominently in their concept of reading.

The six readers who made up the final group of readers seemed to view reading as a multi-faceted process. These readers not only processed the graphophonics, words, grammatical structures, but also used the illustrations and their experience to arrive at meaning. This group of readers' notion of reading seemed to be more inclusive than those held by readers in other groups. This view of reading may help to account for the fact that the most fluent readers are found in this group. Seeing reading as including many cueing systems may in fact allow readers to use more cues to reconstruct the messages intended by the writers.

#### Lincoln's Tom/b/ Revisited

A recent interview with the ex-little boy who discovered a most logical pronunciation for Lincoln's final resting place convinced this researcher that the journey to proficient reading can be via tom/b/s and other "logical" attempts to make sense of language. When asked when he revised his pronunciation of tom/b/, this ex-little boy, now a six-foot four-inch proficient reader, college graduate, assistant



director of a major urban program, laughed and told us that it happened when he was learning the word sepulchre. When he was seven, he was to read aloud in Sunday School a Bible passage on the death and resurrection of Christ. While practicing the verse, he came across the word sepulchre. When he asked what in fact this /se pul' kre/ was, his mother suggested that he might look the word up in the dictionary. While he was looking at the definition, one of his older siblings injected that /sep' el-ker/ was another word for tomb. It was at that moment that he connected tomb (which he had assumed was spelled toom) with the letters t o m b.

The readers in this study often "logically" arrive at responses that violate the conventions of the language. It seems less important to "correct" their violations than to appreciate and applaud their logic. When new information presents itself, these readers, like all language users, revise the hypotheses which produce the violation. Sometimes the language convention is matched with the revision, and sometimes other "logically" produced violations occur.

The information which seems necessary for readers to discover is that no one set of language cues or strategies is reliable in all situations. Those readers who moved away from one strategy pattern to another, e.g., the readers who abandoned picture cues and experience in favor of graphophonic cues, traded one kind of "violation" for another. Some readers seemed to demonstrate a grasp of the notion that oral reading requires several kinds of strategies. The readers in the fifth group, for example, used many cues and strategies to produce their

responses. It is not clear from the data which of the readers in this study will become proficient readers, but many are already proficient users of reading strategies.

## C H A P T E R V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Summary

Beginning reading instruction is, in most places, very much a process of determining "readiness," gauging possible success or failure, and providing lessons in sound and letter matching skills. The advent of the psycholinguistic impact on reading and reading instruction is responsible for some changes in the notion of what is adequate in a beginning reading program. Since researchers discovered that it is impossible for reading to proceed as the piecemeal accretion of letters or words, instruction which proceeds in this piecemeal fashion seems less than desirable. Reading is an active process which requires more and less than words and letters. This beginning reading research study set as one goal to discover the elements of this active process that beginners possessed so that instruction could be better designed. The design would need to take account of the reader's strengths and provide opportunity to overcome shortcomings.

The specific purpose of this study was to describe the strategies or at least the categories of strategies that beginning readers possessed at the start of formal instruction and which they acquired and/or lost during that year of instruction. The secondary goal of the project

was to determine if and how instruction was implicated in the acquisition or attrition of strategies.

To begin to describe the strategies of beginning readers, the author designed several instruments to collect and analyze the data on the print reaction behaviors of beginning readers. The analysis of the data is based in part on the theoretical model of Miscue Analysis. Miscue Analysis theory holds that reading miscues provide a view of the underlying reading process which is masked in flawless reading. Using data analyzed by a modified miscue analysis procedure, the researcher was able to make judgements about the strategies possessed by the readers.

To look at the development of strategies in the group of beginning readers, the following research questions were posed:

1. What print handling strategies do learners have at the start of formal reading instruction?
2. Are there patterns of strategy use among beginning readers?
3. What strategies are acquired/abandoned during the first year of formal reading instruction?
4. Does there seem to be a pattern for the acquisition and loss of strategies in the group of beginning readers?
5. Does the instructional emphasis seem implicated in the acquisition of strategies?
6. Does the instructional emphasis seem implicated in the attrition of strategies?
7. What patterns of strategy use exist at the end of one year of formal instruction?

The data to answer these questions was collected using the following instruments: (1) Print-Reaction Instrument I and its observation sheet--A Walk Through The Neighborhood, an author-designed twelve-paged illustrated children's book; (2) Reading Response Inventory, Code and Record Sheets, a modified Miscue Analysis and Reading Miscue Inventory instrument which asks thirty questions of each miscue to determine which language systems cue the readers' responses; (3) Textbook Analysis Inventory, an inventory which asks questions modeled on the Reading Response Inventory; (4) Print-Reaction Instrument II and its observation sheet--Let's Play Museum, an author-designed twelve-paged illustrated children's book.

### Conclusions

The readers in this study willingly shared their wisdom and insights with this researcher. Analyzing the responses these subjects made to print allows several conclusions to be reached. Perhaps the most important of these conclusions is that each reader brings a unique set of behaviors to the formal reading setting. No two readers in this study produced identical responses. And twenty-six of the thirty readers possessed unique combinations of strategies. Readers and their responses are indeed unique. There are, however, similarities among the readers which lead this researcher to conclude that there are productive uses to be made of the similarities.

The second conclusion drawn from this study is that reader similarities provide more or less "natural" instructional groupings which

allow similar strengths to be the basis for lessons. Lessons based on reader strengths can provide the experience necessary to acquire new strengths while providing impetus for retaining and revising old strategies.

Reader strengths, when not taken into account, often suffer during instruction. A third conclusion from this study concerns preservation of existing reader strengths. Unless there is an awareness and an appreciation of the reading strategies possessed, instruction can, in some readers, foster abandonment of old behaviors in favor of new ones, rather than an acquisition of new strategies with a maintenance and refinement of old strategies. Using pictures and experience need not be abandoned so that graphophonic strategies can take their places. Pictures and experience are often important to the reading process (i.e., science textbooks, patterns, and directions). This strategy should likely be preserved if revised to be used more efficiently.

A fourth conclusion concerns the influences of strategy acquisition and attrition. It would seem that the new strategies acquired and/or the strategies abandoned are influenced by not only instruction but also by the strategies possessed themselves. Readers who omitted words, for example, stopped omitting words when they developed graphophonic and morphemic strategies. Word omissions as a strategy may be an unsatisfactory recourse which readers quickly abandon when new possibility exists. Another example of the influence strategies have on the acquisition/attrition of other strategies can be found in the group who most frequently began producing non-words. When this group acquired

graphophonic strategies they relinquished use of pictures and experience. They simultaneously began producing non-words.

Prior strategies do seem to impact on the acquisition of new strategies, but coupled with prior strategies is of course instructional emphasis. The conclusion reached about the impact of instructional emphasis is that such impact is more observable in readers with fewer strategies. It seems that readers with few strategies made the most gains and the gains were in areas of high instructional emphasis. Readers with more strategies seemed less likely to abandon or acquire strategies and more likely to revise and refine strategies.

Another conclusion from the study is that assessments of reader strengths should be taken regularly. As the differences in behaviors in observation II indicates, reader strengths and weaknesses change over the course of instruction. Environments and experiences need to change in accordance with the changes in the readers' behaviors.

Finally, this researcher concluded that strategy lessons are appropriate for beginning readers. New strategies can be introduced using the strategies of individual or groups of students as the lesson base. Many readers do acquire new strategies and maintain or make more efficient old strategies. With attention to this process from teachers, the process of acquiring new strategies while revising, for more efficiency, other strategies, is a more likely occurrence in the population.

### Implications

There are implications of this research for those people particularly involved with reading and young children. The study has many implications for classroom teachers of beginning readers. This group is involved with assessing skills and planning activities for these readers. The results of this study suggest that assessment of beginning reader skills is in need of revision. The testing which currently goes on in first-grade classrooms gives scores and identifies missed items. The tests do not indicate what the reader can do. Not knowing what the reader is able to do makes instruction inefficient. The study would seem to suggest that there is an advantage for teachers to use a miscue analysis procedure to assess the abilities of the beginners. Among other advantages there is fact that a miscue analysis procedure gives a teacher a place to start with each child. It also gives the teacher an understanding of what the child is doing. It further gives the teacher insight into the "logic" and learning competence of the children.

For parents of young readers, there are similar implications deriving from this study. Parents can also gain insight and understanding of the child's efforts. This insight should lead to appropriate approval and encouragement of the child's efforts. It should eliminate the kind of disapproval which causes children to abandon all attempts to make sense of print. The insight may, in fact, suggest to some parents ways to suggest new experiences which might help the reader to



revise the hypothesis on which he/she is currently working.

Other people involved with young readers, reading specialists, and school administrators may find the results of this study helpful. Reading specialists and reading teacher educators will need to assist in the planning of programs which include language experience opportunities appropriate for the strategies and strengths of all readers. The results of this study suggest that new directions in these programs are warranted. Administrators may use the insights from this study to better evaluate textbooks and programs to be implemented in their schools.

There are implications for reading researchers. It seems clear that there is need for more empirical research into beginning reading. It is important to understand what the child has learned and on what the child bases his decisions about print. New models for data collection and assessment seem likewise in order. It is time consuming and tedious to look at the reading behaviors in the ways suggested in this study. The rewards in insights and appreciation of the young readers more than justify the tedium. New and more efficient models for observing and assessing this age group are necessary if researchers would provide the support needed by the in-service educational personnel.

There are still other implications from the research for the notions of literacy and for the constitution of classroom environments. There are also implications for planning in-service and pre-service teacher training. Literacy in a print-abundant environment, it would seem, develops almost naturally in response to that environment.

The constitution of classrooms should take advantage of the child's natural learning responses to print occurring in his/her environment. Classrooms should therefore make print a functional part of the learning environment. Not only should books, stories and bulletin boards be a part of the classroom, but also messages to the children, directions, and information important to the running of the classroom should be in written form as often as it is feasible.

Finally, the research suggests that information about beginning readers would be most beneficial in the hands of those most directly involved with beginning readers. In-service and pre-service teachers might both benefit from training in the kind of response analysis employed in this study. Further, these teachers should, during the course of training, observe children reading and begin to evaluate their responses to gain a clearer understanding of the efforts of these learners as they strive to make sense of the print. Lesson planning after such training should be more attuned to the abilities and needs of the young beginning readers.

#### Recommendations for Other Researchers

This research effort was supported in part by a Rockefeller Foundation Fellowship. Planning research with the aid of this kind of financial support allows for a larger-scaled project than in otherwise possible. The larger project also places greater demands on the project planners. Careful and advanced planning is the essential element necessary to the success of this kind of project.

The recommendations for those attempting this kind of project include:

1. Select sites and get support of school personnel well in advance of the beginning of data collection
2. Plan travel to sites to be at regular intervals
3. Enlist the aid of reliable assistants for typing, data coding, and, if possible, the grant paperwork
4. Develop and trial-test all research instruments before the project begins.

#### Suggestions for Further Research

Beginning reading research which attempts to describe what readers are actually doing is a fascinating area which requires much work and imagination. Recommendations for further research in this area include:

1. Research should be undertaken to develop a reliable instrument to evaluate the miscues and reading attempts of beginning readers.
2. Research should also be undertaken to assess more accurately instructional impact on reading strategies.
3. A replication of this study with a variety of printed materials, and a variety of beginning readers should be conducted. The improved miscue analysis procedure for beginning readers should also be included in the procedure.

## BIBLIOGRAPHY

- Allen, Paul David. "Psycholinguistic Analysis of the Substitution Miscues of Selected Oral Readers in Grades Two, Four, and Six and the Relationship of These Miscues to the Reading Process: A Descriptive Study." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1970, No. 70-03414).
- Allen, Paul David, and Watson, Dorothy J. Findings of Research in Miscue Analysis: Classroom Implications. Urbana, Illinois: ERIC Clearinghouse on Reading and Communications Skills. National Institute of Education, NCTE, 1979.
- Ausubel, David P. "How Reversible Are Cognitive and Motivational Effects of Cultural Deprivation: Implications for Teaching the Culturally Deprived." Urban Education 1 (1964): 16-39.
- Bereiter, Carl. "Academic Instruction and Preschool Children." In Language Programs for the Disadvantaged. Edited by R. Cobin and M. Crosby. Champaign, Illinois: National Council of Teachers of English, 1965.
- Bereiter, Carl, and Engelman, Siegfried. Teaching Disadvantaged Children in the Preschool. Engelwood Cliffs, New Jersey: Prentice-Hall, 1966.
- Bereiter, Carl; Osborne, Jean; Engelman, Siegfried; and Reidford, P. A. "An Academically-Oriented Preschool for Culturally Deprived Children." In Preschool Education Today. Edited by Fred M. Hechinger. New York: Doubleday, 1965.
- Bloom, Benjamin S.; Davis, Allison; and Hess, Robert. Compensatory Education for Cultural Deprivation. New York: Holt, 1965.
- Bond, Guy, and Dykstra, Robert. "First-Grade Reading Studies." Reading Research Quarterly (Summer 1967): 115-126.
- Bordeaux, Elizabeth Ann, and Shope, N. H. "An Evaluation of Three Approaches to Teaching Reading in First Grade." The Reading Teacher (October 1966): 6-11.

- Brazziel, W. F. "An Experiment in the Development of Readiness in Culturally Disadvantaged Groups of First Grade Children." The Journal of Negro Education 31 (1962): 4-7.
- Burke, Carolyn L. "A Psycholinguistic Description of Grammatical Restructuring in the Oral Reading of Selected Groups of Middle School Children." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilm, 1970, No. 70-03416).
- Burke, Carolyn. "Preparing Elementary Teachers to Teach Reading." In Goodman's Miscue Analysis. Urbana, Illinois: ERIC Clearinghouse on Reading and Communication Skills, 1976.
- Carlson, Kenneth L. "A Psycholinguistic Description of Selected Fourth Grade Children Reading a Variety of Contextual Material." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1971, No. 71-17243).
- Chall, Jeanne. Learning to Read: The Great Debate. New York: McGraw-Hill Book Company, 1967.
- Chomsky, Carol. "Reading, Writing, and Phonology." Harvard Educational Review 40, 2 (1970): 287-309.
- Clay, Marie. Sand. Auckland, New Zealand: Heinemann Educational Books, 1972.
- Cohen, S. A. "Some Conclusions About Teaching Reading to Disadvantaged Children." The Reading Teacher 20 (1967): 433-438.
- Conference of College Composition and Communicating. "Students' Rights To Their Own Language." NCTE, 1974.
- deHirsch, Katrina; Jansky, Jeannette, J.; Langford, W. D. Predicting Reading Failure. New York: Harper and Row, 1966.
- Deutsch, Cynthia. "Auditory Discrimination and Learning: Social Factors." Merrill-Palmer Quarterly 10: 277-296.
- Deutsch, Martin, and Associates. The Disadvantaged Child: Selected Papers of Martin Deutsch and Associates. New York: Basic Books, 1967.
- DiLorenzo, L. T., and Salter, Ruth. "An Evaluative Study of Prekindergarten Programs for Educationally Disadvantaged Children: Follow-up and Replication." Exceptional Children 35, 2 (1968): 111-119.

- Dobzhansky, Theodosius. Evolution, Genetics, and Man. New York: John Wiley and Sons, Inc., 1955.
- Dunn, L. M., et al. "The Effectiveness of Three Reading Approaches and an Oral Language Stimulation Program With Disadvantaged Children in the Primary Grades: An Interim Report After One Year of the Cooperative Reading Project." IMRID Behavioral Science Monograph, 1967, No. 7.
- Fite, June H., and Schwartz, Louise A. "Screening Culturally Disadvantaged, First-Grade Children for Potential Reading Difficulties Due to Constitutional Factors." American Journal of Orthopsychiatry 35 (1965): 359-360.
- Forrester, Anne D. "What Teachers Can Learn From 'Natural Readers.'" The Reading Teacher 31, 2 (November 1977): 160-166.
- Fried, Morton H. "A Four Letter Word That Hurts." Saturday Review XLVIII (October 1965): 22.
- Garrett, H. E. Heredity: The Cause of Racial Differences in Intelligence. Kilmarnock, Virginia: Patrick Henry Press, 1971.
- Gibson, Eleanor J., and Levin, Harry. The Psychology of Reading. Cambridge: MIT Press, 1975.
- Goldman, H. "The Schools and the Disadvantaged." In How to Teach Disadvantaged Youth. Edited by A. C. Ornstein and P. D. Vairo. New York: David McKay, 1969, pp. 53-65.
- Goodman, Kenneth S. "Reading: A Psycholinguistic Guessing Game." Journal of the Reading Specialist 6 (May 1967): 126-135.
- \_\_\_\_\_. "Analysis of Oral Reading Miscues: Applied Psycholinguistics." Reading Research Quarterly 1, 5 (1969): 9-30.
- \_\_\_\_\_. "Psycholinguistic Universals in the Reading Process." Journal of Typographic Research 4 (1970): 103-110.
- \_\_\_\_\_. "The Reading Process: Theory and Practice." In Language And Learning To Read. Edited by Richard E. Hodges and E. Rudolf. Boston: Houghton Mifflin, 1973, pp. 143-156.
- \_\_\_\_\_. "Miscues: Windows on the Reading Process." In Goodman's Miscue Analysis: Application to Reading Instruction. Urbana, Illinois: NCTE, 1973, pp. 3-14.
- \_\_\_\_\_. "Effective Teachers of Reading Know Language and Children." Elementary English 51, 6 (September 1974): 823-828.

- Goodman, Kenneth S., and Goodman, Yetta M. "Learning About Psycholinguistic Process by Analyzing Oral Reading." Harvard Educational Review 47, 3 (August 1977): 317-333.
- Goodman, Yetta M. "A Psycholinguistic Description of Observed Oral Reading Phenomena in Selected Young Beginning Readers." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1968, No. 68-09961).
- \_\_\_\_\_. "I Never Read Such a Long Story Before." English Journal (November 1974): 65-71.
- \_\_\_\_\_. "Longitudinal Study of Children's Oral Reading Behavior." U.S.O.E. Final Report, Project No. 9-E-062, Grant No. OEG-5-9-325062-0046. Washington, D. C.: U. S. Department of Health, Education, and Welfare, September 1971.
- Goodman, Yetta, and Burke, Carolyn L. Reading Miscue Inventory: Procedure for Diagnosis and Evaluation. New York: MacMillan, 1972.
- Goodman, Yetta, and Watson, Dorothy J. "A Reading Program to Live With: Focus on Comprehension." Language Arts 54, 8 (November/December 1977): 868-879.
- Gottfried, Nathan W. "Effects of Early Intervention Programs." In Comparative Studies of Blacks and Whites. Edited by Kent S. Miller and Ralph Mason Dreger. New York: Seminar Press, 1973, pp. 273-293.
- Gutknecht, Bruce A. "A Psycholinguistic Analysis of Oral Reading Behavior of Selected Children Identified as Perceptually Handicapped." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1972, No. 72-14563).
- Harris, Albert J., and Serwer, Blance L. "Comparing Reading Approaches in First Grade Teaching with Disadvantaged Children." The Reading Teacher (May 1966): 631-635.
- Hawkridge, D. G.; Tallmadge, G. K.; and Larsen, Judith K. "Foundations for Success in Educating Disadvantaged Children." Final Report Covering Project No. 107143 and Contract OEC-0-9-107143-1370-099. Palo Alto, California: American Institute for Research in the Behavioral Sciences, 1968.
- Hodges, W. L.; McCandless, B. R.; and Specker, H. H. "The Development and Evaluation of Diagnostically Based Curriculum for Preschool Psychosocially Deprived Children." Final Report Covering Contracts No. 5-0350 and OEC 32-24-0210-1011. Washington, D. C.: Office of Education, 1967.

- Holmes, Dorothy Lott. "The Independence of Letter, Word, and Meaning Identification in Reading." Reading Research Quarterly 6, 3 (1971): 394-415.
- Horn, Thomas D. "Three Methods of Developing Reading Readiness in Spanish-Speaking Children in First Grade." The Reading Teacher (October 1966): 38-42.
- Hoskisson, Kenneth. "The Many Facets of Assisted Reading." Elementary English 52 (1975): 312-315.
- Huey, Edmund Burke. The Psychology and Pedagogy of Reading. New York: MacMillan, 1908. Republished by the MIT Press, Cambridge, Massachusetts.
- Hunt, J. McVicker. "The Psychological Basis for Using Preschool Enrichment as an Antidote for Cultural Deprivation." Merrill-Palmer Quarterly 10 (1964): 209-248.
- \_\_\_\_\_. "Introduction in Disadvantaged Child." Edited by J. Hellmuth. Special Publication of the Seattle Sequin School, Seattle, 1967, pp. 257-299.
- Ingle, D. J. "Possible Genetic Basis of Social Problems: A Reply to Ashley Montagu." Midway 10 (1970): 105-121.
- Jencks, Christopher. Inequality: A Reassessment of the Effects of Family Schooling in America. New York: Basic Books, 1972.
- Jensen, Arthur R. "Social Class and Verbal Learning." In Social Class, Race and Psychological Development. Edited by Martin, Deutsch, Irwin, Katz, and Arthur Jensen. New York: Holt, 1968.
- \_\_\_\_\_. Educability and Group Differences. New York: Harper, 1973.
- \_\_\_\_\_. "How Much Can We Boost I.Q. and Scholastic Achievement?" Harvard Educational Review 39 (1969): 1-123.
- Karlin, Robert (ed.). Perspective on Elementary Reading Principles and Strategies of Teaching. New York: Harcourt, Brace, Jovanovich, Inc., 1913.
- Kohl, Herb. "Basic But Not The Same." Teacher (September 1975): 14, 16, 21-22, 24.
- Kolers, Paul. "Three Stages of Reading." In Frank Smith's Psycholinguistics and Reading. New York: Holt, Rinehart and Winston, Inc., 1973.



- \_\_\_\_\_. "Experiments in Reading." Scientific American (October 1974): 84-91.
- Ludwig, Jay B., and Stalker, James C. "Miscue Analysis and the Training of Junior and Senior High School English Teachers." In Goodman's Miscue Analysis: Application to Reading Instruction. Urbana, Illinois: NCTE, 1976, pp. 30-39.
- Maliphant, R.; Supramaniam, S.; and Saraga, E. "Acquiring Skill in Reading: A Review of Experimental Research." Journal of Child Psychology and Psychiatry 15, 3 (July 1974): 175-185.
- Miller, George A. "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information." Psychology Review 63 (1965): 81-97.
- Malpass, Leslie F.; Williams, C. F.; and Gilmore, A. S. "Programmed Reading Instruction for Culturally Deprived Slow Learners." Final Report of Project No. 6-8438 and Contract No. OEC-2-7-0684-0069. Washington, D. C.: Office of Education, 1967.
- Montagu, Ashley (ed.). Race and I.Q. London: Oxford University Press, 1975.
- \_\_\_\_\_. "The Concept of Race." American Anthropologist LXIV (October 1962): 919-928.
- \_\_\_\_\_. The Idea of Race. Lincoln, Nebraska: 1965, pp. 9-10.
- Nieratka, Ernie. "Using Miscue Analysis to Advise Content Area Teachers." In Goodman's Miscue Analysis: Application to Reading Instruction. Urbana, Illinois: NCTE, 1976, pp. 97-99.
- Niles, Olive S. "Comprehension Skills." Reading Teacher 17 (September 1963): 2-7.
- Nobles, Wade. "The Black Family and Its Children." Black Books Bulletin 6, 2 (1978): 6-14.
- Page, William D. "A Psycholinguistic Description of Patterns of Miscues Generated by a Proficient Reader in Second Grade, an Average Reader in the Fourth Grade, and an Average Reader in Sixth Grade, Encounter Ten Basal Reader Selections Ranging from Pre-Primer to Sixth Grade." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1971, No. 71-17298).

- Ogbu, John U. Minority Education and Caste: The American System in Cross-Cultural Perspective. New York: Harcourt, Brace, Jovanovich, 1978.
- Rauch, S. J. "Ten Guidelines for Teaching the Disadvantaged." Journal of Reading 10, 8 (1967): 536.
- Read, Charles. "Pre-School Children's Knowledge of English Phonology." Harvard Educational Review 41, 1 (February 1974): 1-34.
- Riesman, F. The Culturally Deprived Child. New York: Harper and Row, 1962.
- Romatowski, Jane A. "A Psycholinguistic Description of Miscues Generated by Selected Bilingual Subjects During the Oral Reading of Instructional Reading Material as Presented in Polish Readers and in English Basal Readers." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1973, No. 73-12586).
- Russell, T., and Fes, R. "Readiness." In Handbook of Research in Teaching. Edited by N. Gage. Chicago: Rand McNally, 1963, pp. 865-883.
- Saint-Exupery, Antoine de. The Little Prince. New York: Harcourt, Brace, and World, Inc., 1943.
- Shockley, William. Phi Delta Kappa. January 1972 (Special Supplement): 297-307.
- Sims, Rudine. "A Psycholinguistic Description of Miscues Generated by Selected Young Readers During the Oral Reading of Text Material in Black Dialect and Standard English." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1972, No. 72-28487).
- \_\_\_\_\_. "Miscue Analysis--Emphasis on Comprehension." Journal of New England Reading Association 2, 1 (1975): 6-10, 46-50.
- Smith, E. Brooks; Goodman, Kenneth; and Meredith, Robert. Language and Thinking in Elementary School. New York: Holt, Rinehart and Winston, 1970, Chapter 15.
- Smith, Frank. Comprehension and Learning. New York: Holt, Rinehart and Winston, 1975.
- \_\_\_\_\_. "Language and Language Development." In Richard Hodges and Hugh Rudolf's Language and Learning to Read. Boston: Houghton Mifflin, 1972, pp. 33-43.

- \_\_\_\_\_. "Learning to Read by Reading." Language Arts (March 1976): 297-299, 322.
- \_\_\_\_\_. Psycholinguistics and Reading. New York: Holt, Rinehart and Winston, 1973.
- \_\_\_\_\_. "The Role of Prediction in Reading." Elementary English (March 1975): 305-311.
- \_\_\_\_\_. "The Use of Featural Dependencies Across Letters in the Visual Identification of Words." Journal of Verbal Behavior 8 (1969): 212-215.
- Smith, Frank, and Goodman, Kenneth S. "On the Psycholinguistic Method of Teaching Reading." Elementary School Journal (January 1971): 177-181.
- Smith, Laura A., and Lindberg, Margaret. "Building Instructional Materials." In Goodman's Miscue Analysis: Application to Reading Instruction. Urbana, Illinois: NCTE, 1976, pp. 71-90.
- Spache, George D.; Andres, Micaela, C.; Curtis, H. A.; Rowland, Minnie Lee; and Fields, Minnie Hall. "Longitudinal First Grade Reading Readiness Program." The Reading Teacher (May 1966): 580-584.
- Stauffer, Russell. "The Effectiveness of Language Arts and Basic Reader Approaches to the First Grade Reading Instruction." The Reading Teacher (October 1966): 18-24.
- Thornton, Mervin F. "A Psycholinguistic Description of Purposive Oral Reading and Its Effect on Comprehension for Subjects with Different Reading Backgrounds." Doctoral dissertation, Wayne State University (Ann Arbor, Michigan: University Microfilms, 1973, No. 73-31787).
- Torrey, Jane W. "Learning to Read Without a Teacher: A Case Study." In Psycholinguistics and Reading. Edited by Frank Smith. New York: Holt, Rinehart and Winston, 1973.
- Watson, Dorothy J. "Helping the Reader From Miscue Analysis to Strategy Lessons." In Goodman's Miscue Analysis: Application to Reading Instruction. Urbana, Illinois: ERIC Clearinghouse on Reading and Communication Skills, 1976.
- Whiteman, M., and Deutsch, M. "Social Disadvantage as Related to Intellectual and Language Development." In Social Class, Race and Psychological Development. Edited by Martin Deutsch, Irwin Katz and Arthur Jensen. New York: Holt, 1968.

Wyatt, Nita M. "The Reading Achievement of First Grade Boys Versus First Grade Girls." The Reading Teacher (May 1966): 661-665.

APPENDICES

APPENDIX A  
RESEARCH PROCEDURE

RESEARCH PROCEDURE

PHASE I

PHASE III

(PRINT REACTION)

## PRELIMINARIES:

THE AREA SET ASIDE FOR THE RESEARCH SESSIONS SHOULD BE SOMEWHAT PRIVATE BUT NOT COMPLETELY ISOLATED, QUIET, AND COMFORTABLE. THERE SHOULD BE A TABLE AND TWO CHAIRS, ONE FOR THE CHILD AND ONE FOR THE EXAMINER. THE CHAIRS SHOULD BE NEXT TO EACH OTHER RATHER THAN ACROSS FROM ONE ANOTHER.

## MATERIALS:

TAPE RECORDER

INSTRUMENT I: A WALK THROUGH THE NEIGHBORHOOD

INSTRUMENT II: LET'S PLAY MUSEUM

## GENERAL PROCEDURES:

1. PRESENT (PAGES) TO THE CHILD.
2. ASK OPEN-ENDED QUESTIONS ABOUT THE PRINT AND PICTURES, (IF NECESSARY).
3. USE TAPE RECORDER TO RECORD CHILD RESPONSES.
4. ON THE RESPONSE SHEET NOTE PERTINENT NON-VERBAL RESPONSES



PHASE I / INSTRUMENT I

PART I: THE BOOK / THE NOTION OF READING  
EXAMINER

START THE TAPE RECORDER AND

SAY: WOULD YOU SAY YOUR NAME FOR ME?

SAY: I HAVE A BOOK FOR YOU, \_\_\_\_\_  
WOULD YOU LIKE TO READ IT?

--FOR A NEGATIVE RESPONSE--

SAY: WOULD YOU LIKE TO LOOK AT THE  
BOOK WITH ME

--AFTER A POSITIVE RESPONSE--

HAND THE BOOK TO CHILD HOLDING IT VERTI-  
CALLY BY THE OUTSIDE EDGE, SPINE  
TOWARDS THE CHILD.

SAY: SHOW ME THE FRONT OF THE BOOK.

ASK: HOW DO YOU KNOW? OR WHAT MAKES  
YOU THINK SO?

ASK: CAN YOU TELL ME WHAT THESE ARE?  
(POINT TO WORDS)

ASK: CAN YOU TELL ME WHAT THIS IS?  
(POINT TO A LETTER.)

PURPOSE

--TO ESTABLISH THAT THE TASK IS READING

--TO ENCOURAGE PARTICIPATION EVEN IF CHILD  
DOES NOT THINK S/HE CAN READ.

--TO ESTABLISH THAT THE CHILD UNDERSTANDS WHAT  
THE ORIENTATION OF THE BOOK SHOULD BE.

--TO DETERMINE WHAT CUES THE CHILD IS RESPOND-  
ING TO.

--TO ESTABLISH THAT THE CHILD HAS A SENSE OF  
WHAT WORDS ARE.

--TO ESTABLISH THAT THE CHILD HAS A SENSE OF  
WHAT A LETTER IS.

EXAMINER:

PURPOSES

- ASK: WHAT DO YOU THINK THIS SAYS?      -- TO DETERMINE THE CHILD'S RESPONSE TO THE PRINT.
- THEN ASK: HOW DO YOU KNOW THAT?      -- TO DETERMINE WHAT CUES THE CHILD IS RESPONDING TO.

PART II: TEXT REACTION

GENERAL PROCEDURE FOR TEXT REACTION

- ASK: WHAT DO YOU THINK THIS SAYS?  
WHAT DO YOU THINK THESE WORDS SAY?      -- TO DETERMINE THE CHILD'S RESPONSE TO THE PRINT
- THEN ASK: WHAT MAKES YOU THINK SO?  
HOW DO YOU KNOW?  
WHAT MAKES YOU THINK THE WORDS SAY THAT?      -- TO DETERMINE WHAT CUES THE CHILD IS RESPONDING TO,
- SAY: TELL ME WHAT YOU ARE LOOKING AT.      -- TO DETERMINE THE SPECIFIC STIMULI THE CHILD IS REACTING TO

IF THE CHILD IS UNABLE TO "READ" OR BE SATISFIED THAT HE IS FINISHED WITH THE PAGE

ASK: WOULD YOU LIKE ME TO READ THIS PAGE TO YOU? IF YES, READ THE PAGE AND

SAY: LET'S LOOK AT OR GO ON TO THE NEXT PAGE.

FOLLOW THE GENERAL PROCEDURE FOR EACH PAGE UNLESS ALERTED TO A DEVIATION BY THE MANUAL!

TEXT

PURPOSES

EXAMINER

(c) A WALK THROUGH THE NEIGHBORHOOD

SEE PART I

(1) It was so pretty and sunny outside that I wanted to go for a walk.

FOLLOW GENERAL PROCEDURE PART II

(2) I asked my big sister if she would take me for a walk.

FOLLOW GENERAL PROCEDURE PART II

(3) She said we could go after breakfast. I ate cheerios. They are my favorite things to eat.

ASK: HAVE YOU EVER SEEN ANYTHING ON THIS PAGE BEFORE?  
 THEN ASK: WHAT DO YOU THINK THIS WORD IS? (POINT TO "CHEERIOS IN TEXT).  
 --TO DETERMINE ANY PREVIOUS CONTACT WITH WORDS IN ILLUS, OR TEXT.  
 --TO DETERMINE RESPONSE TO WORD IN DIFFERENT CONTEXT.

THEN FOLLOW GENERAL PROCEDURE PART II

(4) I like going places with my big sister. She is very smart. She knows how to cross the street and everything.

FOLLOW GENERAL PROCEDURE PART II

(5) At the end of the block, I saw a big red sign that said STOP.

ASK: HAVE YOU EVER SEEN THIS BEFORE? (POINT TO SIGN.)  
 THEN ASK: WHAT DO YOU THINK THIS SAYS (POINT TO WORD STOP.)  
 --TO DETERMINE PREVIOUS CONTACT WITH ROAD SIGN  
 --TO DETERMINE RESPONSE WORD FREE OF RICH CONTEXT

<p>(6) We looked out for cars and then we crossed the street,</p>	<p>ASK: HAVE YOU EVER SEEN ANYTHING ON THIS PAGE BEFORE? ANYTHING ELSE?</p> <p>THEN: FOLLOW GENERAL PROCEDURE PART II</p> <p>--TO DETERMINE PREVIOUS CONTACT WITH THINGS IN ILLUS. OR TEXT.</p>
<p>(7) Down the next street I saw a McDonald's. I asked my sister if we could get a hamburger. She said no.</p>	<p>ASK: DO YOU SEE ANYTHING ON THIS PAGE YOU'VE SEEN BEFORE?</p> <p>THEN ASK: WHAT DO YOU THINK THIS WORD SAYS? (POINT TO "MCDONALDS".)</p> <p>THEN: FOLLOW GENERAL PROCEDURE PART II</p> <p>--TO DETERMINE PREVIOUS CONTACT THINGS IN ILLUS. OR TEXT.</p> <p>--TO DETERMINE RESPONSE TO WORD FREE OF RICH CONTEXT.</p>
<p>(8) We crossed a wide street at the corner where a light tells you when to stop and when to go.</p>	<p>ASK: HAVE YOU EVER SEEN THIS BEFORE? (POINT TO TRAFFIC LIGHT.)</p> <p>THEN: FOLLOW GENERAL PROCEDURE PART II</p> <p>--TO DETERMINE IF CHILD MAKES CONNECTION BETWEEN ENVIRONMENT AND BOOK ILLUSTRATION</p>
<p>(9) We came to a school. My sister said I would go there in the fall. We played on the swings before we left.</p>	<p>FOLLOW GENERAL PROCEDURE PART II</p>
<p>(10) We walked through the park and then we walked back home.</p>	<p>FOLLOW GENERAL PROCEDURE PART II</p>

<p>(11) I told mama about all the things I saw on my walk. I told her about the sign that said "Coke adds life." She smiled and said, "drink your milk. It adds life too."</p>	<p>ASK: YOU EVER SEEN THIS BEFORE? (POINT TO COKE AND MILK IN ILLUS.)</p> <p>ASK: DO YOU KNOW WHAT THIS SAYS? (POINT TO THE WORD COKE.)</p> <p>NOW: FOLLOW GENERAL PROCEDURE PART II</p>	<p>--TO DETERMINE IF CHILD MAKES CONNECTION WITH ILLUS. AND ENVIRON.</p> <p>--TO DETERMINE CHILD'S RESPONSE TO CONTEXT FREE PRINT.</p>
<p>(12) Mama said I had to take a nap.</p>	<p>FOLLOW GENERAL PROCEDURE PART II</p>	
<p>(13) I told her I wasn't sleepy at all.</p>	<p>FOLLOW GENERAL PROCEDURE PART II</p>	

SAY: CAN YOU TELL ME WHAT YOU REMEMBER ABOUT THE STORY?

WHEN THE CHILD STOPS

SAY: IS THAT ALL YOU REMEMBER?

WHEN THE CHILD HAS TOLD ALL S/HE REMEMBERS ABOUT THE STORY

SAY: THANK YOU FOR LOOKING AT THE BOOK WITH ME.

PHASE III / INSTRUMENT II

PART I: THE TASK IS READING

EXAMINER

START THE TAPE RECORDER AND

SAY: WOULD YOU SAY YOUR NAME FOR ME?

HOW OLD ARE YOU?

WHEN IS YOUR BIRTHDAY?

SAY: I HAVE A BOOK FOR YOU, \_\_\_\_\_ --TO ESTABLISH THAT THE TASK IS READING.

WOULD YOU LIKE TO READ IT?

--FOR A NEGATIVE RESPONSE--

SAY: WOULD YOU LIKE TO LOOK AT THE  
BOOK WITH ME?

--AFTER A POSITIVE RESPONSE--

HAND THE BOOK TO THE CHILD AND BEGIN THE TEXT REACTION PART OF OBSERVATION.

PART II: TEXT REACTION

FOLLOW GENERAL PROCEDURE FOR PHASE I

FOLLOW THE GENERAL PROCEDURE FOR EACH PAGE UNLESS ALERTED TO A DEVIATION BY THE MANUAL!

TEXT	EXAMINER	PURPOSES
(c) Let's Play Museum	FOLLOW GENERAL PROCEDURE	
(1) Let's Play Museum	FOLLOW GENERAL PROCEDURE	
(1) One morning it rained. It rained BIG gray drops! It made BIG SPLASHY PUDDLES and brown squishy mud.	ASK: DO YOU NOTICE ANYTHING DIFFERENT ABOUT THE WORDS ON THIS PAGE  NOW FOLLOW GENERAL PROCEDURE	--TO DETERMINE IF ATTENTION IS PAID TO WORD PLACEMENT.
(2) It made Bryan and Amia Edwards sad. They could not go outside.	FOLLOW GENERAL PROCEDURE	
(3) Bryan had an idea. "Let's play museum!" "What's museum?" asked, Amia.	ASK: DO THESE MARKS MEAN ANY- THING? (POINT TO QUOTA- TION MARKS) WHAT?  ASK: WHAT DO YOU THINK THIS IS? (POINT TO " ")	--TO DETERMINE IF READER IS ABLE TO MAKE USE OF THESE CUES.  --TO DETERMINE IF THIS CUE IS AVAILABLE TO READER
(4) "Museum is where they have old things and new things to look at," said Bryan.	NOW FOLLOW GENERAL PROCEDURE  FOLLOW GENERAL PROCEDURE	

<p>(5) So they got the crayons and the paper and started to draw some old things and some new things.</p>	<p>FOLLOW GENERAL PROCEDURE</p>
<p>(6) Amia drew a giraffe and a volkswagon a spaceship and a yellow school bus.</p>	<p>FOLLOW GENERAL PROCEDURE</p>
<p>(7) Bryan drew an African hut a fire engine a skyscraper an a butterfly.</p>	<p>FOLLOW GENERAL PROCEDURE</p>
<p>(8) They put the pictures on the walls and put a sign on the door.  /_ Bryan and Amia Museum come in  \$4.00/</p>	<p>FOLLOW GENERAL PROCEDURE</p>
<p>(9) Bryan and Amia began to shout, MAMA!!! DADDY!!! COME TO OUR MUSEUM!!!</p>	<p>ASK: DO YOU THINK THESE WORDS LOOK LIKE THIS (POINT TO WORDS IN CAPS.)  ASK: DO THESE MARKS MEAN ANYTHING (POINT "!" )  --TO DETERMINE IF MEANING IS DERIVED FROM SIZE OF PRINT,  --TO DETERMINE IF MEANING IS DERIVED FROM THIS CUE</p>



(10) Mr. Edwards was working on the car and so did not hear the shouts. Mrs Edwards came but she only had one dollar.

FOLLOW GENERAL PROCEDURE

"Only one dollar!" said Bryan.  
 "Well, you may come in, but just look at one wall."

(11) Mrs. Edwards paid the dollar and went in. "This really is a beautiful museum. This is the best wall of them all." Bryan and Amia were very proud of their museum.

FOLLOW GENERAL PROCEDURE

SAY: CAN YOU TELL ME WHAT YOU REMEMBER --TO DETERMINE COMPREHENSION

ABOUT THE STORY? (WHEN CHILD STOPS

SAY: IS THAT ALL YOU REMEMBER?

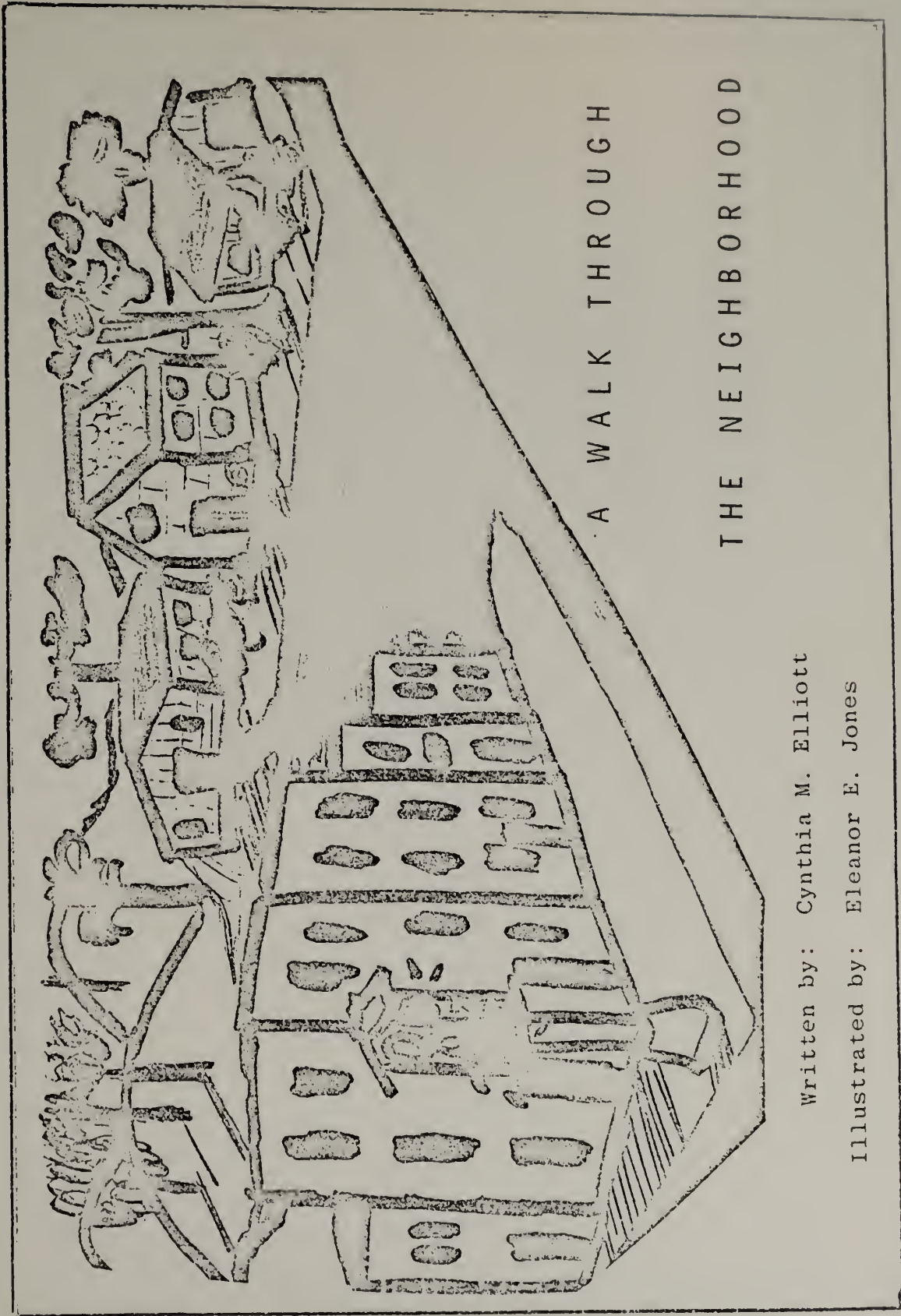
WHEN THE CHILD HAS FINISHED

SAY: THANK YOU FOR LOOKING AT THE BOOK WITH ME.

APPENDIX B  
SAMPLE  
PRINT-REACTION INSTRUMENTS

## INSTRUMENT I

A WALK THROUGH THE NEIGHBORHOOD

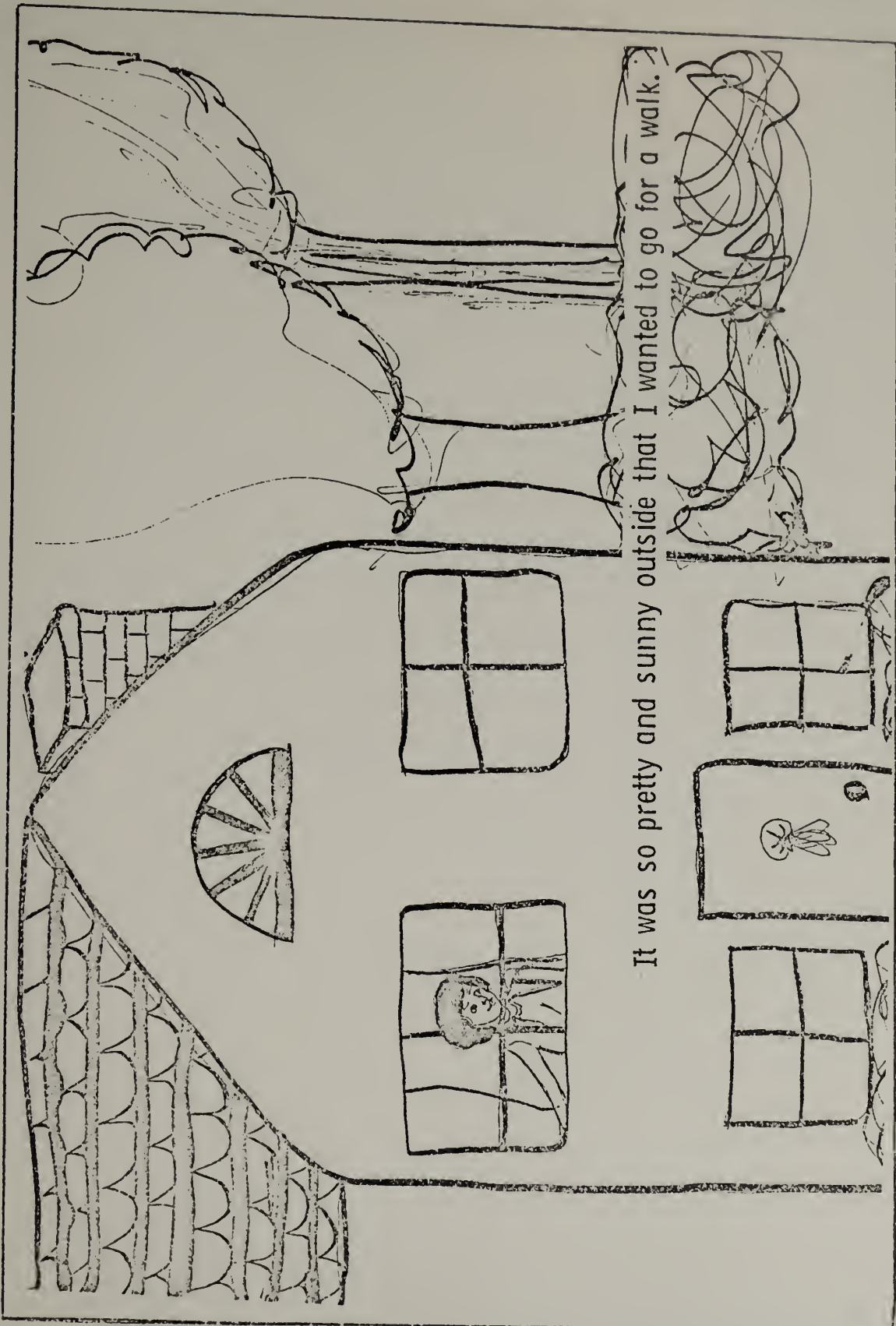


A WALK THROUGH

THE NEIGHBORHOOD

Written by: Cynthia M. Elliott

Illustrated by: Eleanor E. Jones

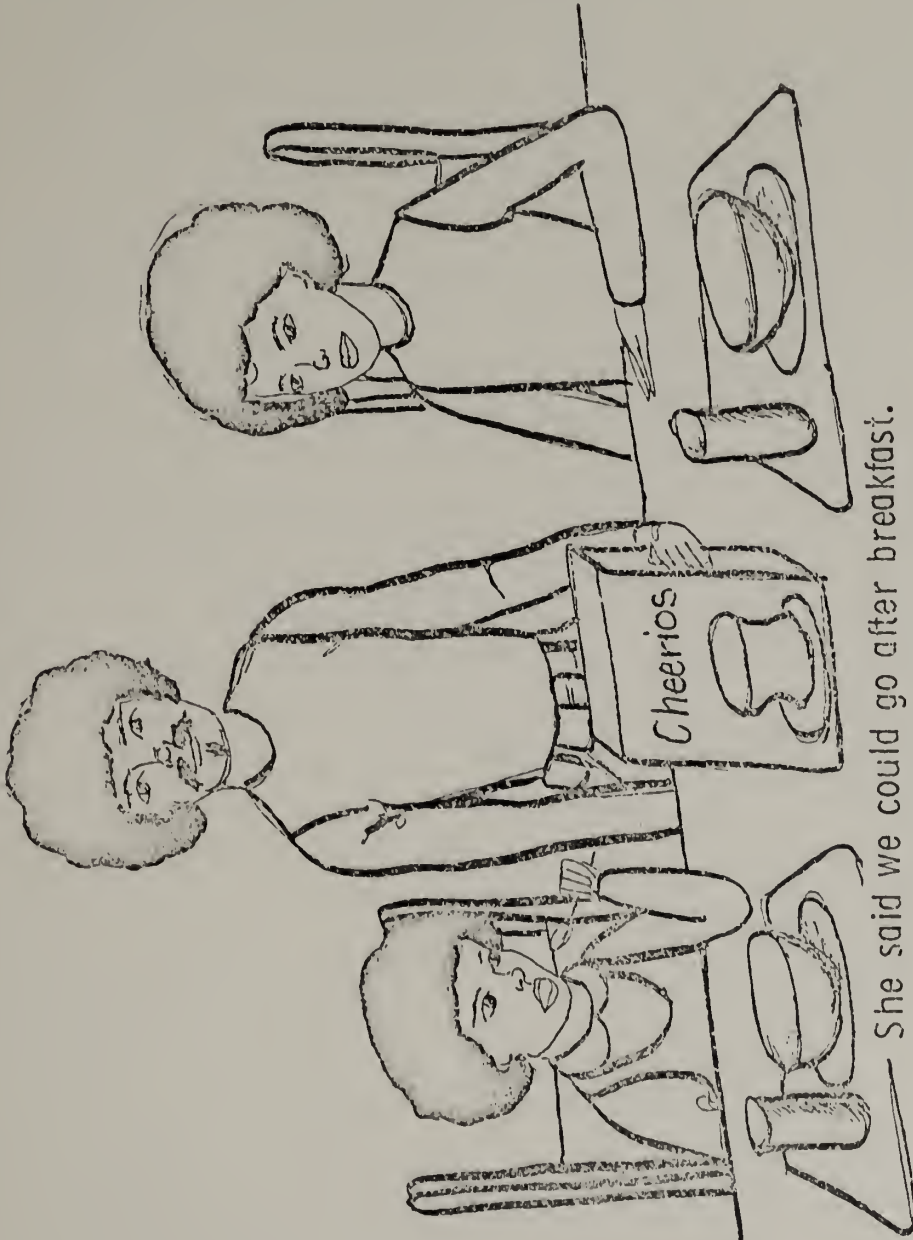


It was so pretty and sunny outside that I wanted to go for a walk.

I asked my big sister

if she would take me for a walk.



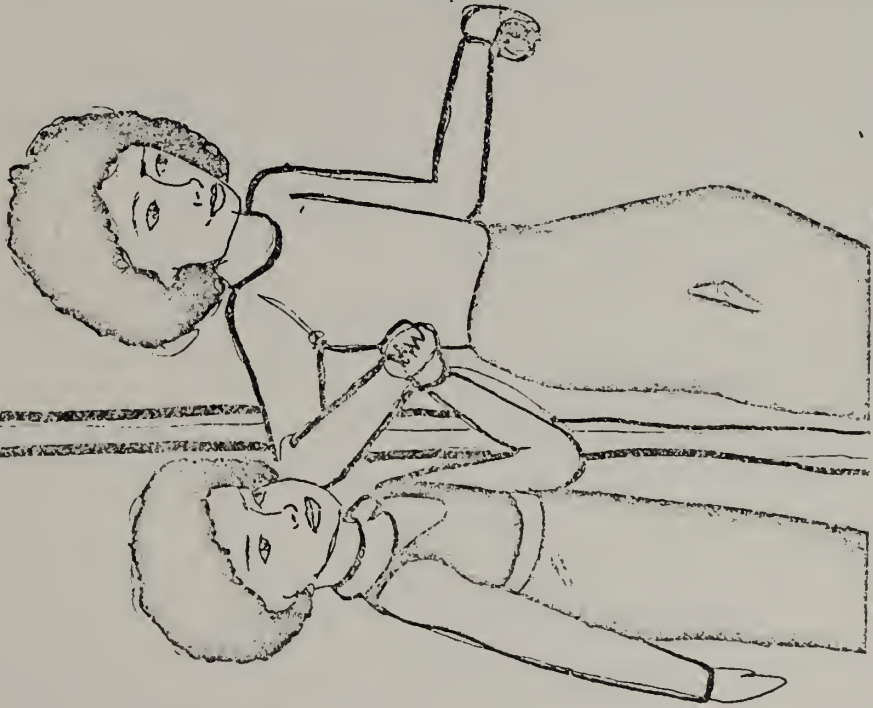
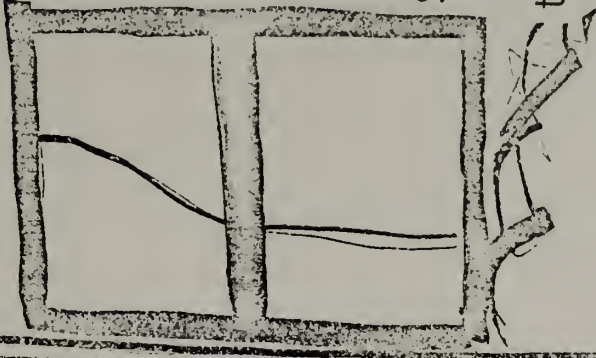


I ate Cheerios. They are my favorite things to eat.

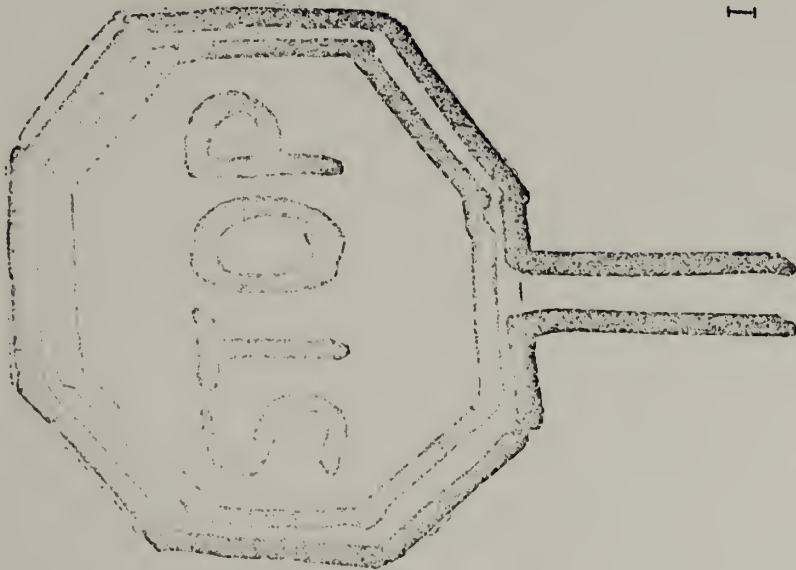
I like going places  
with my big sister.

She is very smart.

She knows how to cross  
the street  
and everything.



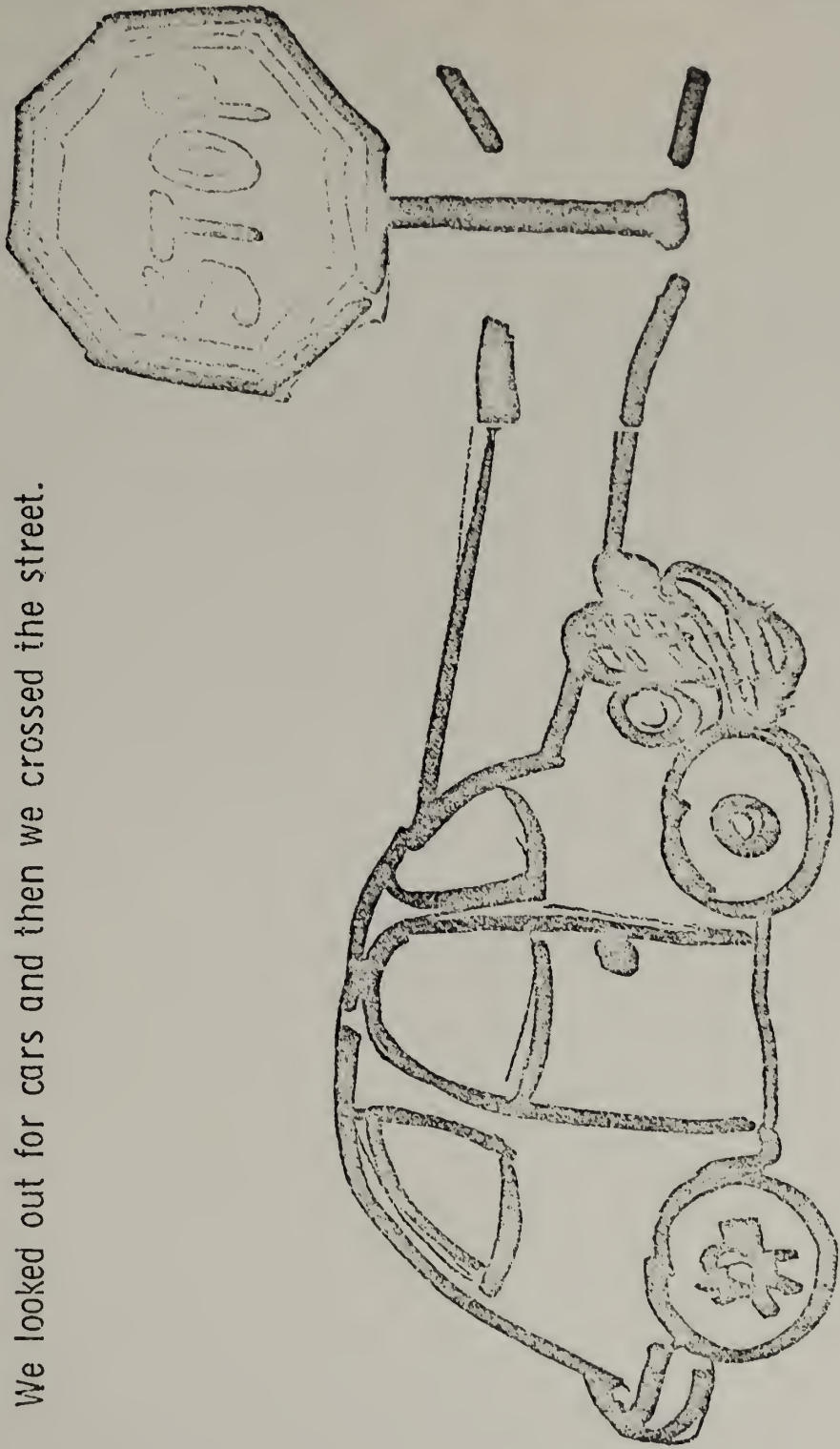


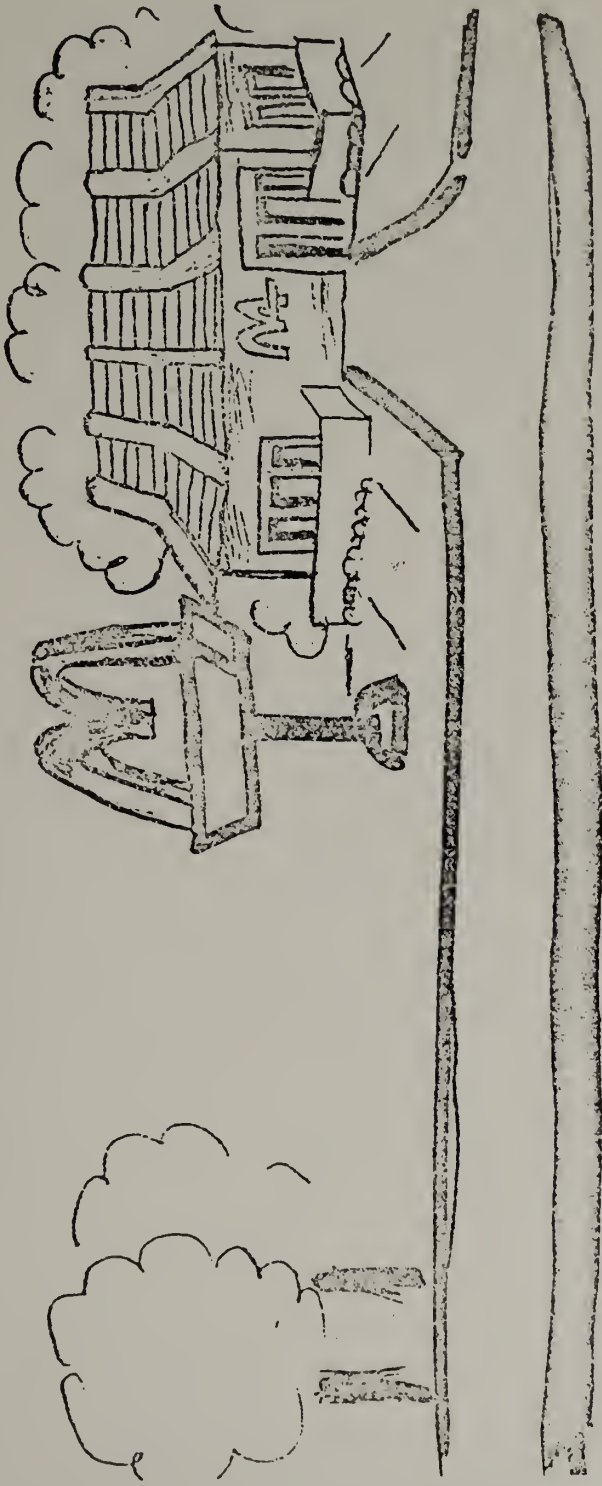


At the end of the block,

I saw a big red sign that said STOP.

We looked out for cars and then we crossed the street.





Down the next street I saw a McDonald's.

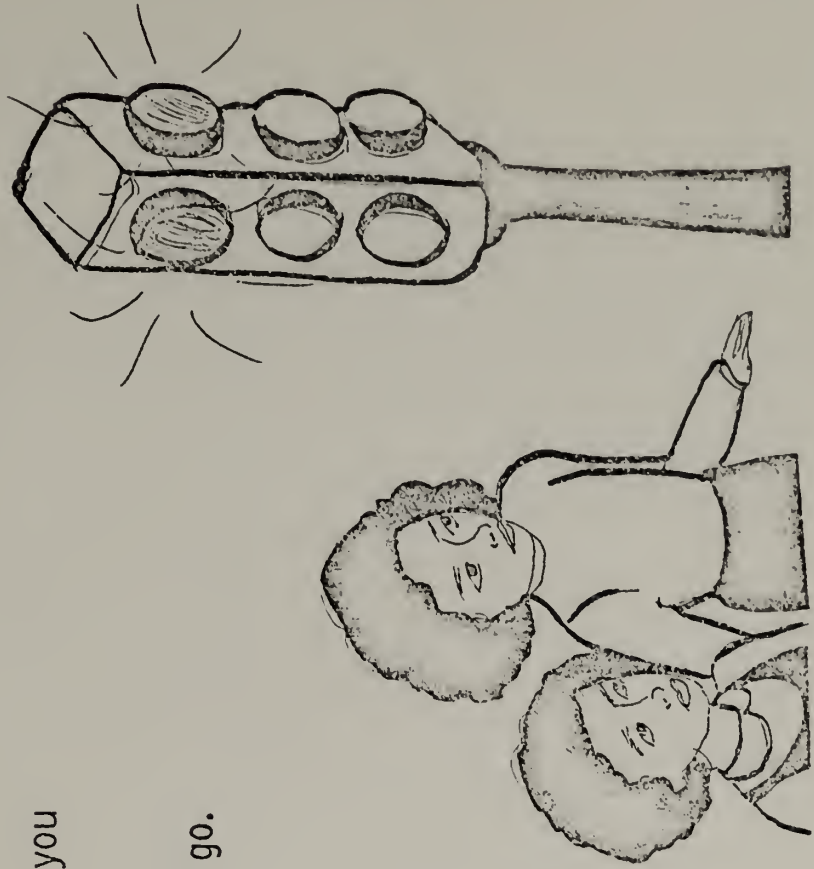
I asked my sister if we could get a hamburger.

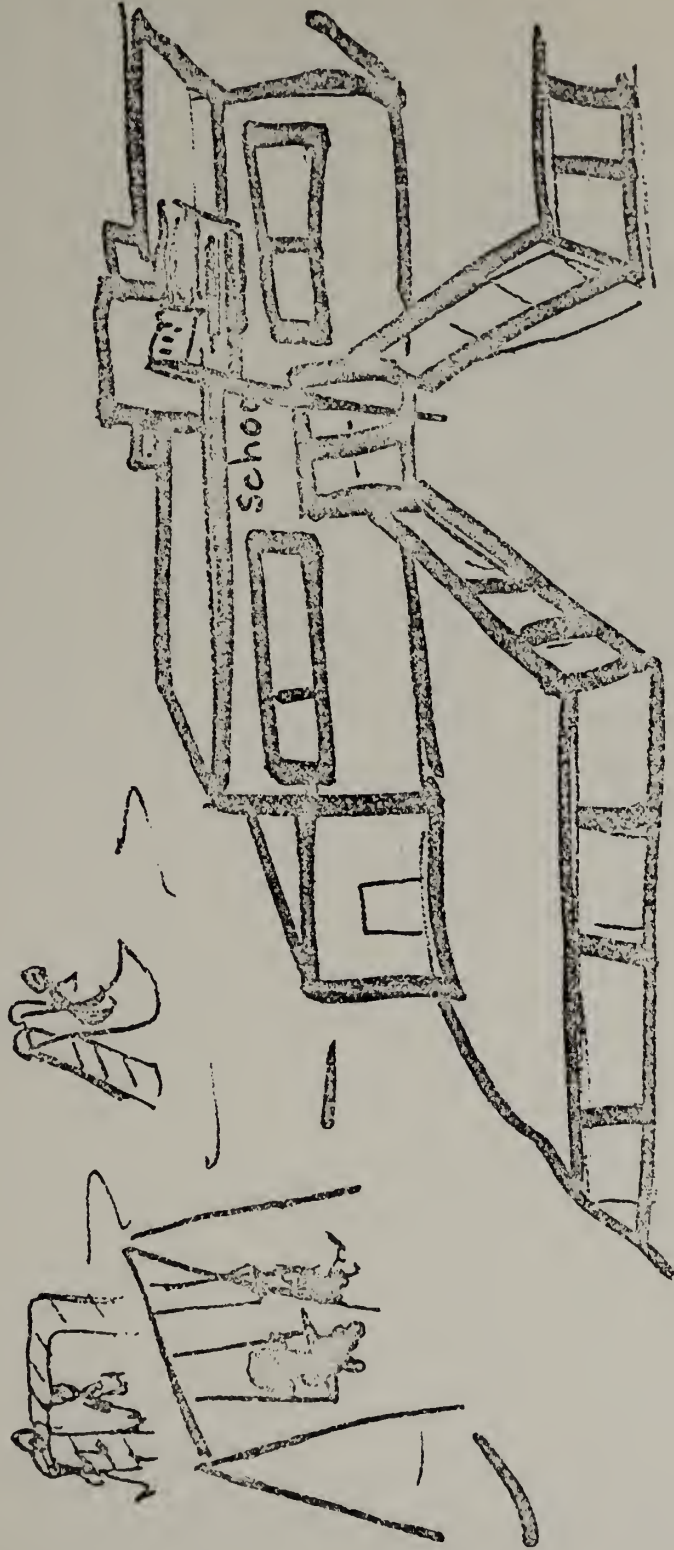
She said no!

We crossed a wide street at the corner

where a light tells you

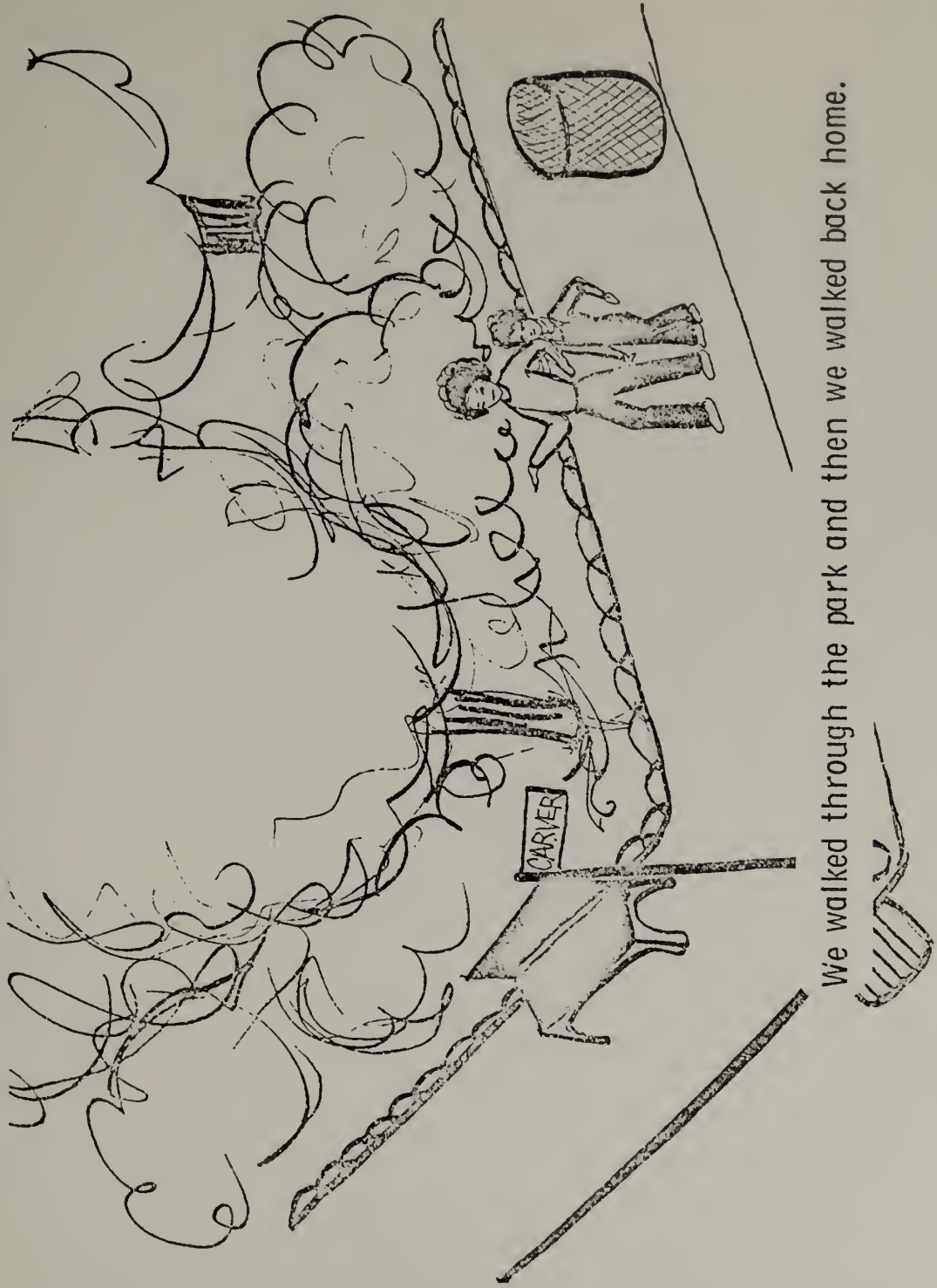
when to stop and when to go.





We came to a school. My sister said I would go there in the fall.

We played on the swings before we left.



We walked through the park and then we walked back home.

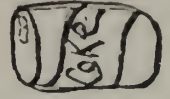
I told mama about all the things I saw on my walk.

I told her about the sign that said

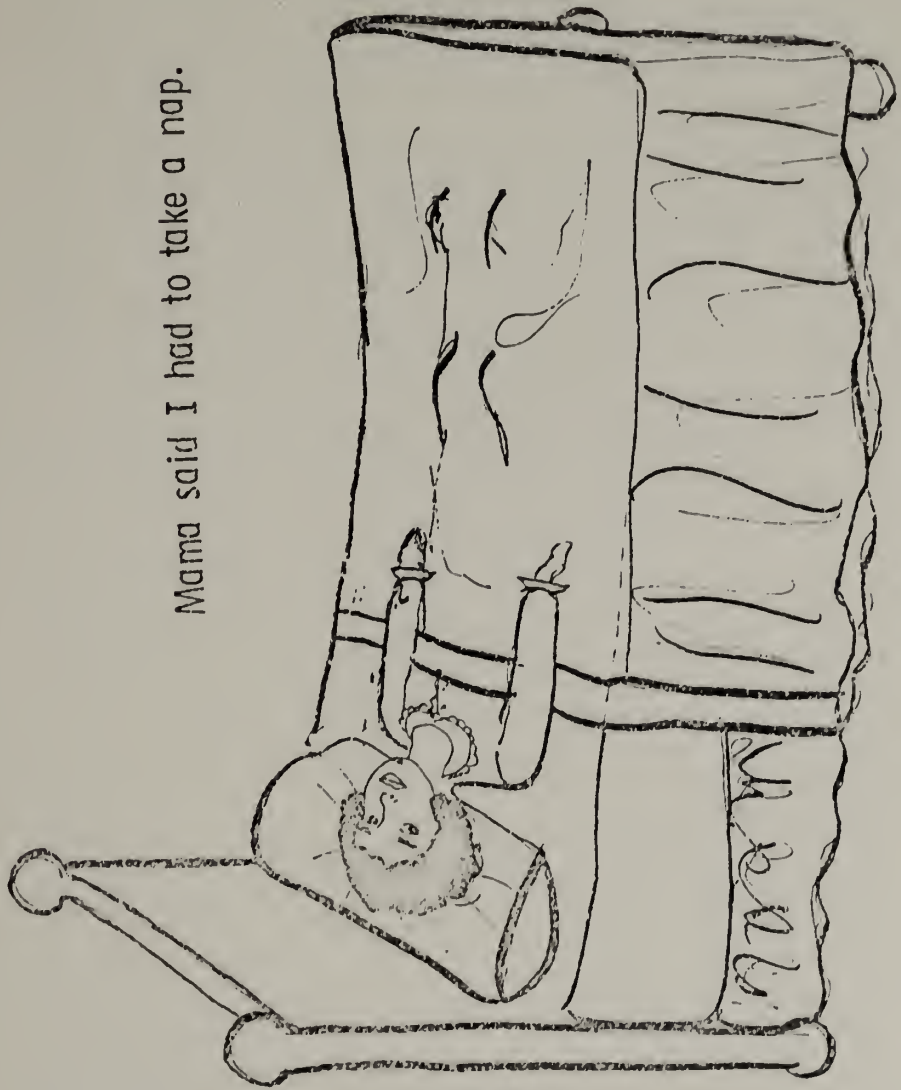
"Coke adds life."



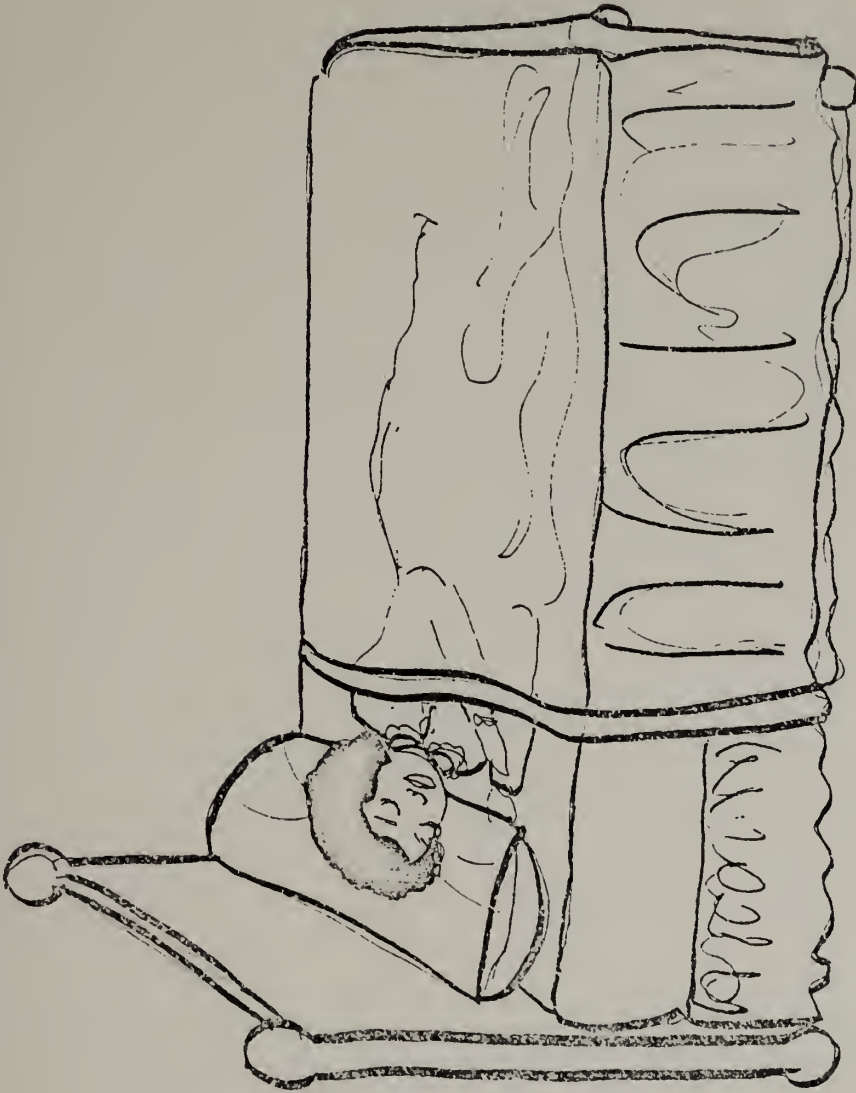
She smiled and said, "drink your milk. It adds life too."



Mama said I had to take a nap.

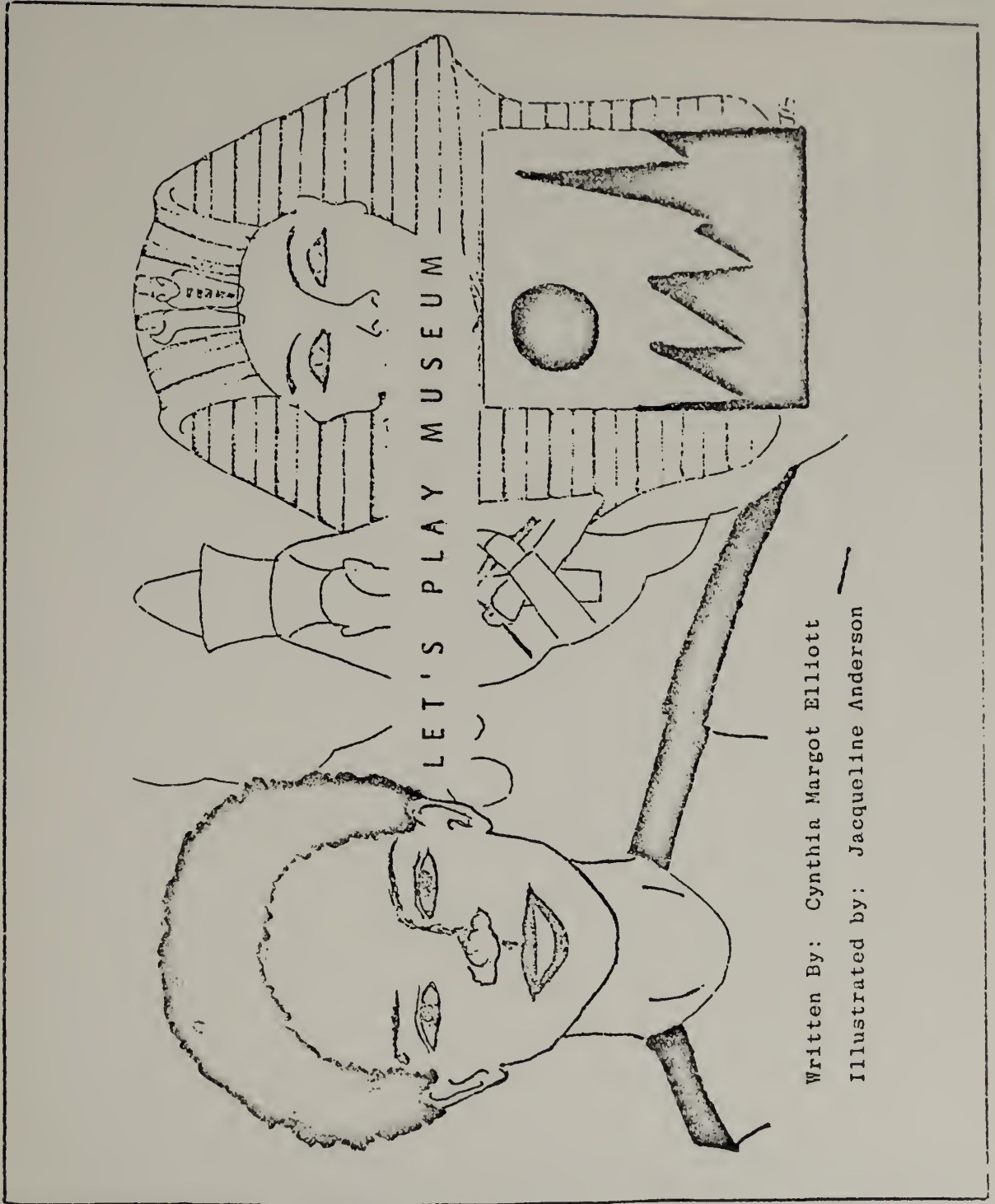






I told her I wasn't sleepy at all.

INSTRUMENT II  
LET'S PLAY MUSEUM



Written By: Cynthia Margot Elliott

Illustrated by: Jacqueline Anderson

LET'S PLAY MUSEUM

Research Instrument developed  
for Beginning Reading Research

Project

January 1979

by

Cynthia Margot Elliott

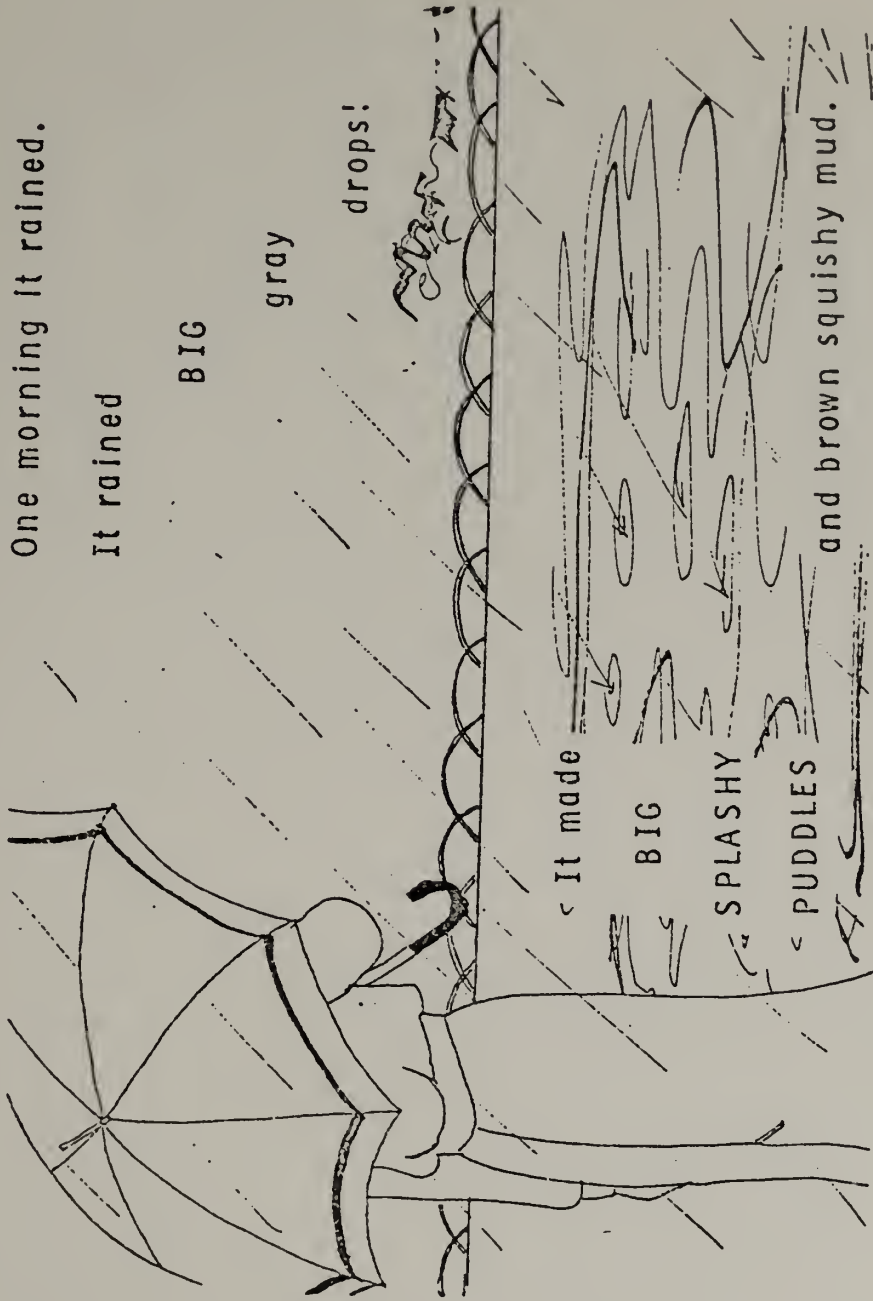
One morning it rained.

It rained

BIG

gray

drops!

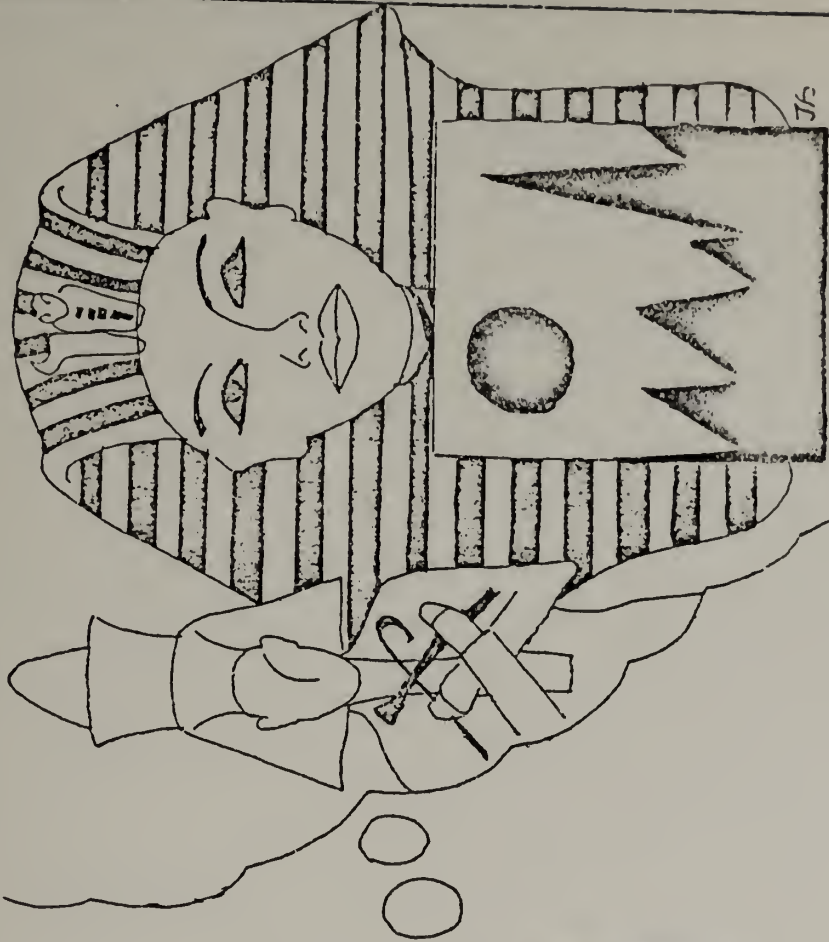




It made Bryan and Amia Edwards sad.

They could not go outside.

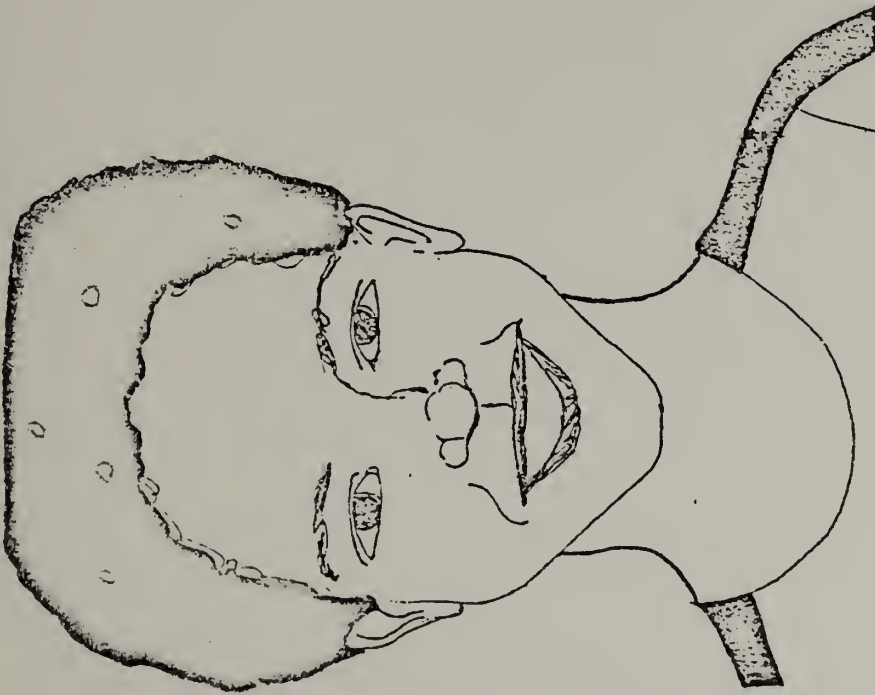
Bryan had an idea.



"Let's play MUSEUM!"



"What's museum?"  
asked, Amia.



"Museum is where they have old things  
and new things to look at," said  
Bryan.

So they got out the crayons and the paper and started to draw



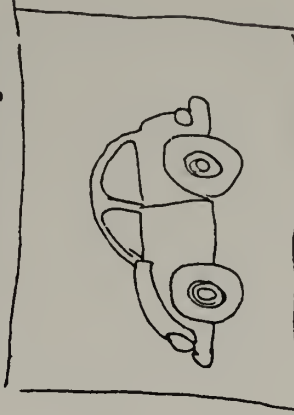
some old things

and some new things.

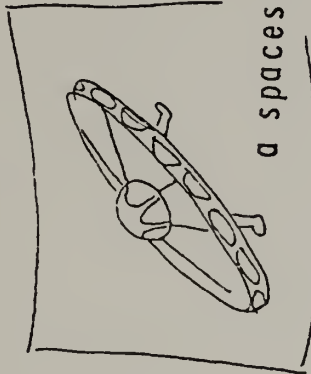
Amia drew a giraffe



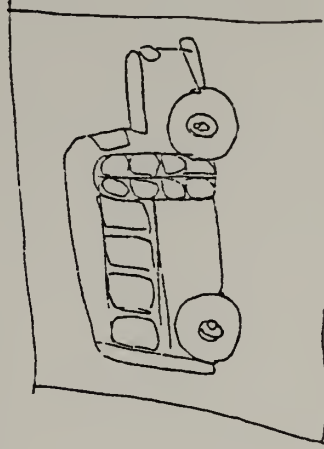
and a volkswagon

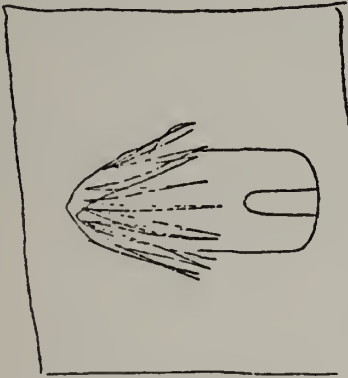


a spaceship

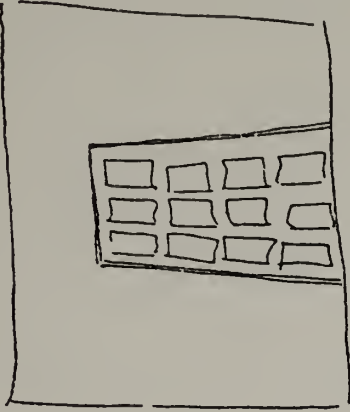


and a yellow school bus.

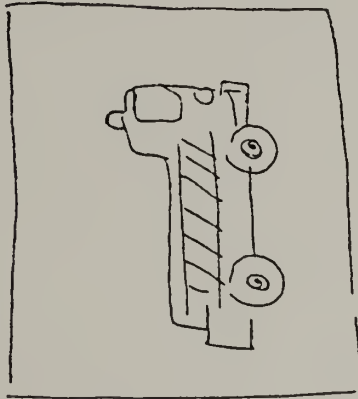




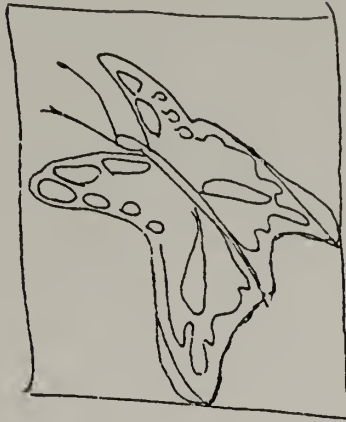
Bryan drew an African hut



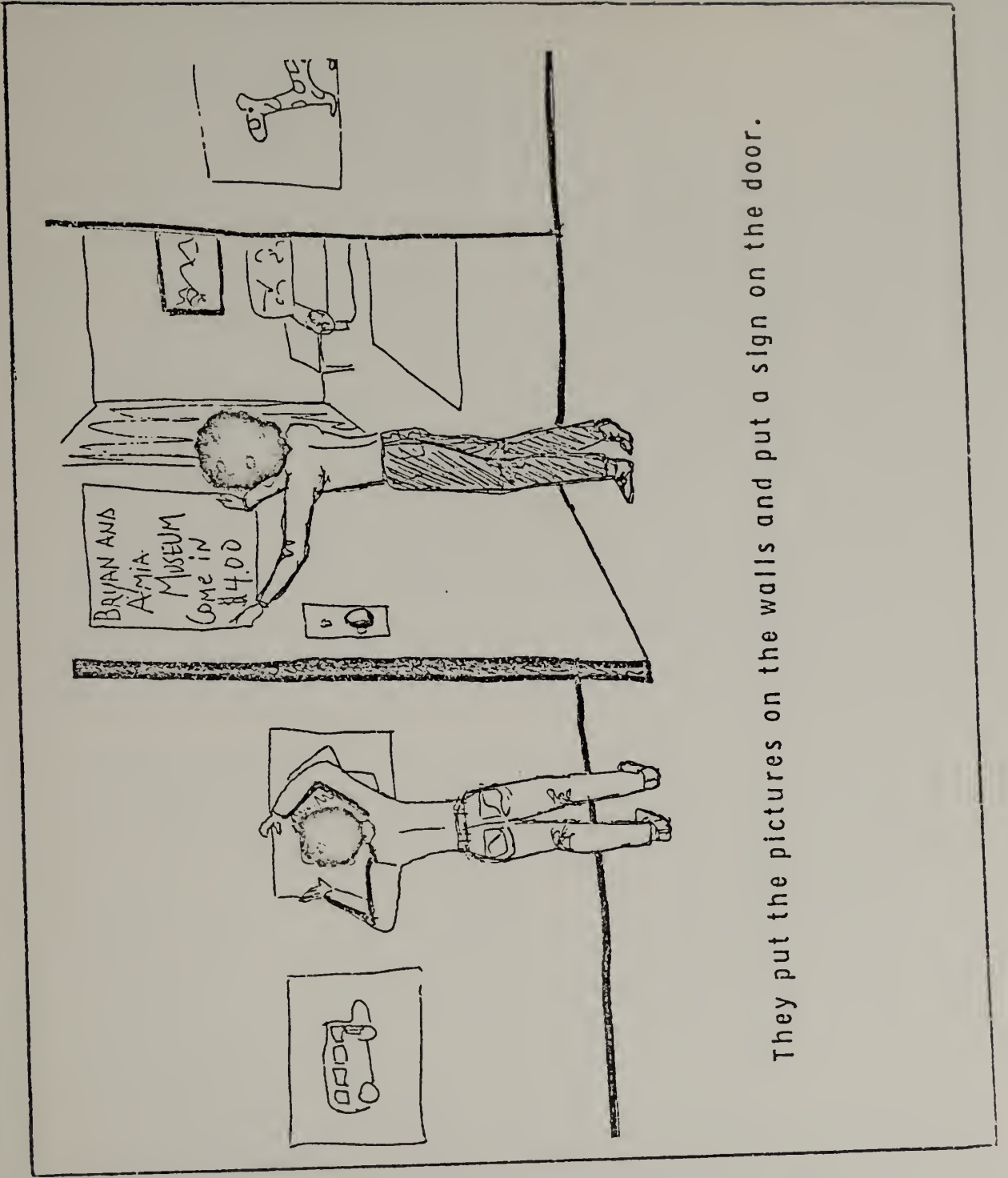
a skyscraper



a fire engine



and a butterfly.



They put the pictures on the walls and put a sign on the door.

Bryan and Amia began to shout,

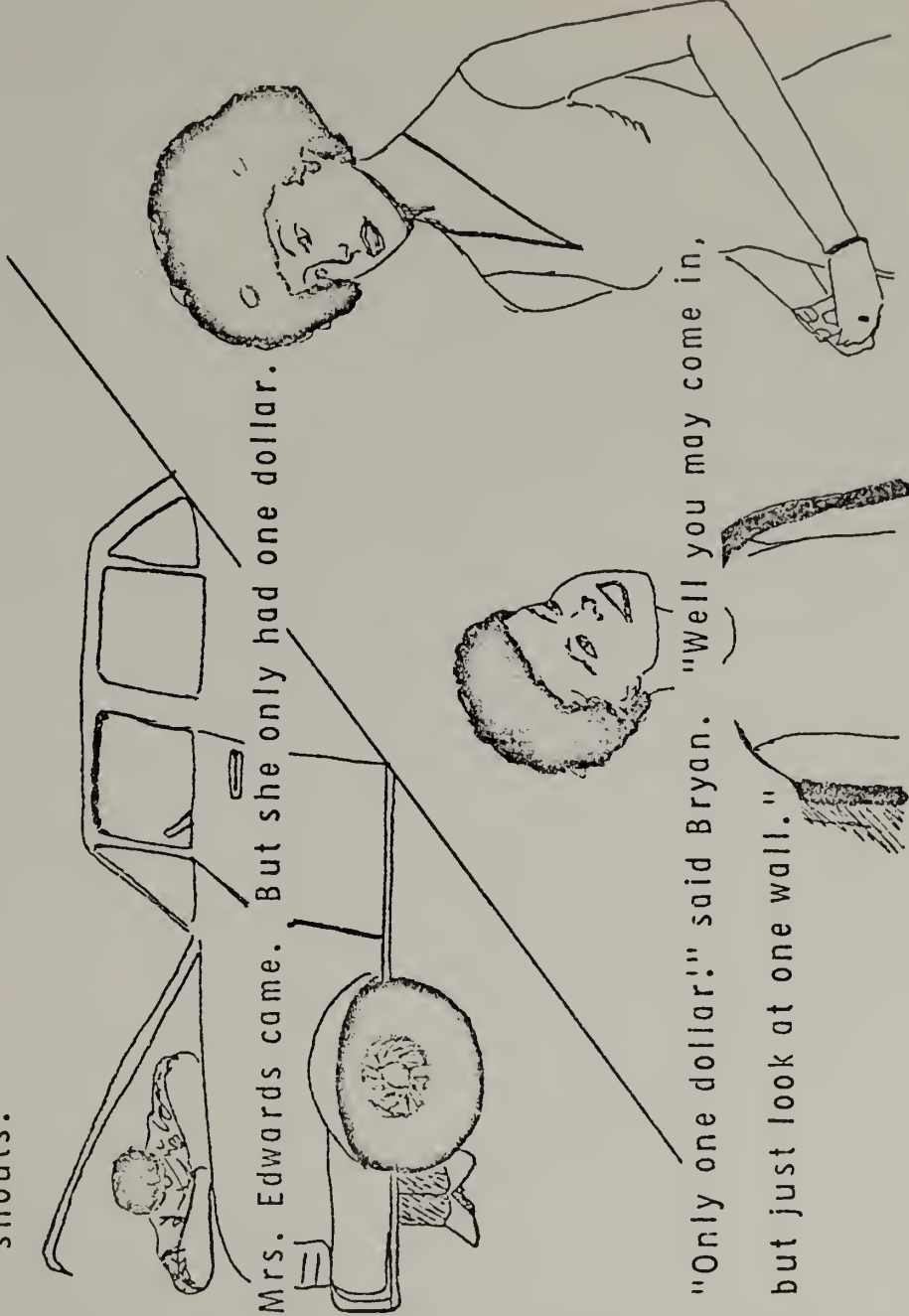
"MAMA!!!!!!!!!!!!!!!!!!!!!!

DADDY!!!!!!!!!!!!!!!!!!!!!!

COME TO OUR MUSEUM!!!!!!!!!!!!!!!!!!!!!!



Mr. Edwards was working on the car and so did not hear their shouts.



Mrs. Edwards came. But she only had one dollar.

"Only one dollar!" said Bryan. "Well you may come in, but just look at one wall."

Mrs. Edwards paid the dollar and went in.

"This really is a beautiful museum.

This is the best wall of them all."



Bryan and Amia were very proud of their museum.



APPENDIX C  
PRINT-REACTION  
OBSERVATION SHEETS

OBSERVATION SHEET

INSTRUMENT I

## SUBJECT OBSERVATION SHEET

NAME \_\_\_\_\_

DATE OF OBSERVATION \_\_\_\_\_

AGE \_\_\_\_\_

YRS. MOS.

THE RETELLING

NON-VERBAL  
RESPONSES

TEXT

## (c) A WALK THROUGH THE NEIGHBORHOOD

(1) It was so pretty and sunny outside that I wanted to go for a walk.

(2) I asked my big sister if she would take me for a walk.

(3) She said we could go after breakfast. I ate cheerios. They are my favorite things to eat.

(4) I like going places with my big sister. She is very smart. She knows how to cross the street and everything.

(5) At the end of the block, I saw a big red sign that said STOP.

(6) We looked out for cars and then we crossed the street.

	<p>(7) Down the next street I saw a McDonald's. I asked my sister if we could get a hamburger. She said no!</p>
	<p>(8) We crossed a wide street at the corner where a light tells you when to stop and when to go.</p>
	<p>(9) We came to a school. My sister said I would go there in the fall. We played on the swings before we left.</p>
	<p>(10) We walked through the park and then we walked back home.</p>
	<p>(11) I told mama about all the things I saw on my walk. I told her about the sign that said "Coke adds life." She smiled and said, "drink your milk. It adds life too."</p>
	<p>(12) Mama said I had to take a nap.</p>
	<p>(13) I told her I wasn't sleepy at all.</p>

OBSERVATION SHEET

INSTRUMENT II

SUBJECT OBSERVATION SHEET

NAME \_\_\_\_\_ DATE OF OBSERVATION \_\_\_\_\_ AGE \_\_\_\_\_ YRS. MOS. THE RETELLING

NON-VERBAL RESPONSES

TEXT

<p>(c) Let's play museum</p>		
<p>(1) Let's play museum</p>		
<p>(1) One morning it rained. It rained BIG gray drops!  It made BIG SPLASHY PUDDLES and brown squishy mud.</p>		
<p>(2) It made Bryan and Amia Edwards sad.  They could not go outside.</p>		
<p>(3) Bryan had an idea.  "Let's play museum!"  "What's museum?"  asked, Amia.</p>		
<p>(4) "Museum is where they have old things  and new things to look at," said Bryan.</p>		

PAGE 2

(5) So they got the crayons  
and the paper  
and started to draw  
some old things and some new things.

(6) Amia drew  
a giraffe and a volkswagon  
a spaceship  
and a yellow school bus.

(7) Bryan drew  
an African hut  
a fire engine a skyscraper  
and a butterfly

(8) They put the pictures on the walls  
and put a sign on the door.

Bryan and Amia  
Museum  
come in  
\$4.00

(9) Bryan and Amia began to shout,  
"MAMA!!!!!!!!!!!! DADDY!!!!!!!!!!!!"  
COME TO OUR MUSEUM!!!!!!!!!!!!!!

PAGE 3

(10) Mr. Edwards was working on the car

and so did not hear the shouts.

Mrs. Edwards came But she only had one dollar.

"Only one dollar!" said Bryan. "Well, you may

come in, but just look at one wall

(11) Mrs. Edwards paid the dollar and went in.

"This really is a beautiful museum.

This is the best wall of them all."

Bryan and Amdia were very proud of their museum.



APPENDIX D  
SAMPLES  
INVENTORY CODE SHEETS







APPENDIX E  
DATA TABLES  
OBSERVATION I









APPENDIX F  
DATA TABLES  
INSTRUCTIONAL EMPHASIS

TABLE 32  
 COMBINED SCORES OF TEXTUAL EMPHASIS  
BETA ELEMENTARY SCHOOL

Combined  
 Emphasis  
 Scores

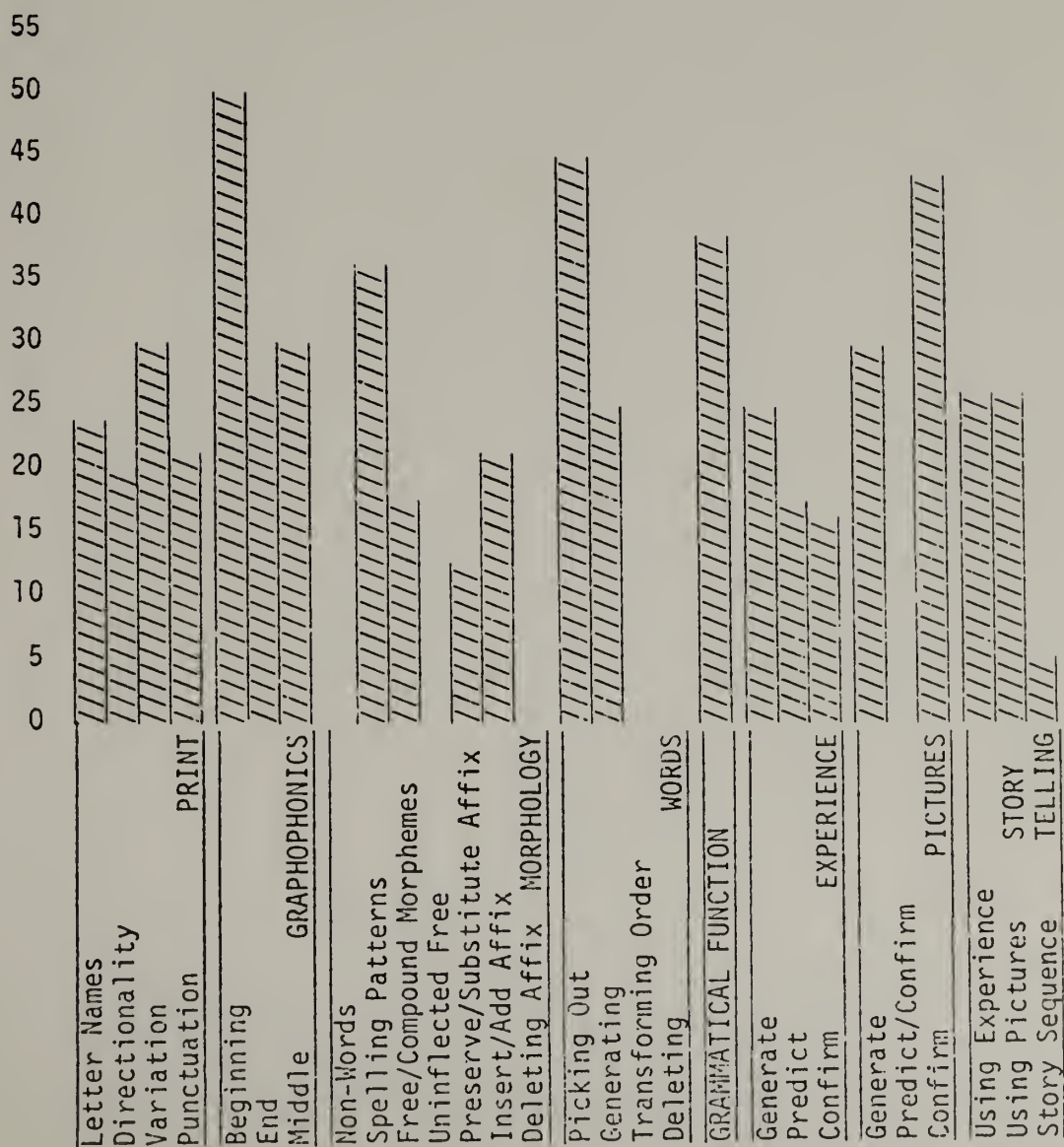


TABLE 33

INSTRUCTIONAL EMPHASIS

Textbook: Who Can?/Lost and Found/Hats and Bears  
 Authors: Carl B. Smith and Ronald Wardhaugh  
 Publishing Company: MacMillan Publishing Company, Inc.  
 Publishing Date: 1975

Emphasis  
Scores

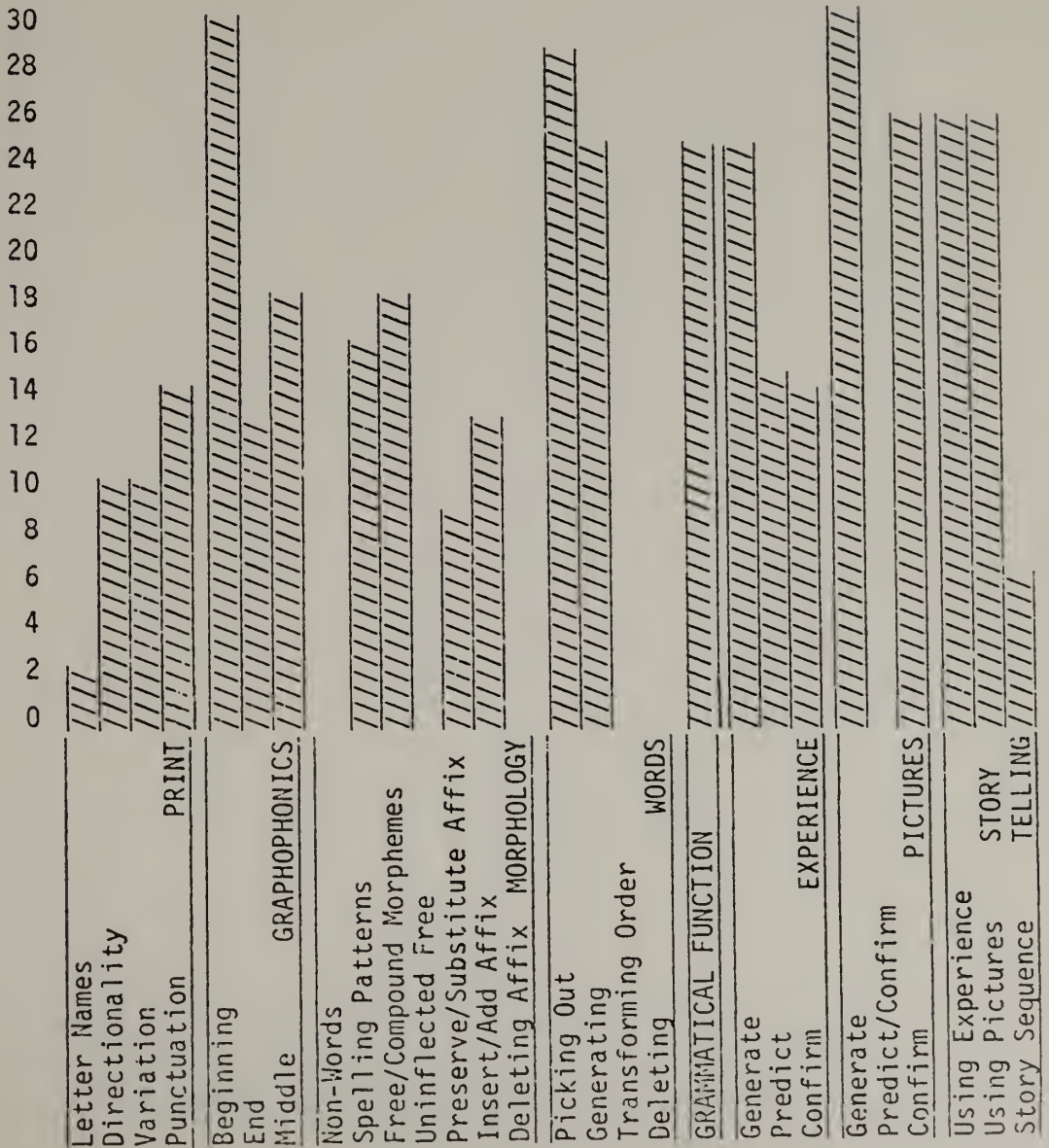


TABLE 34

## INSTRUCTIONAL EMPHASIS

Textbook: Phonics Manual and Lesson Plans, Level A  
 Authors: Elwell-Murray-Kucia  
 Publishing Company: Modern Curriculum Press, Inc.  
 Publishing Date: 1976

Emphasis  
Scores

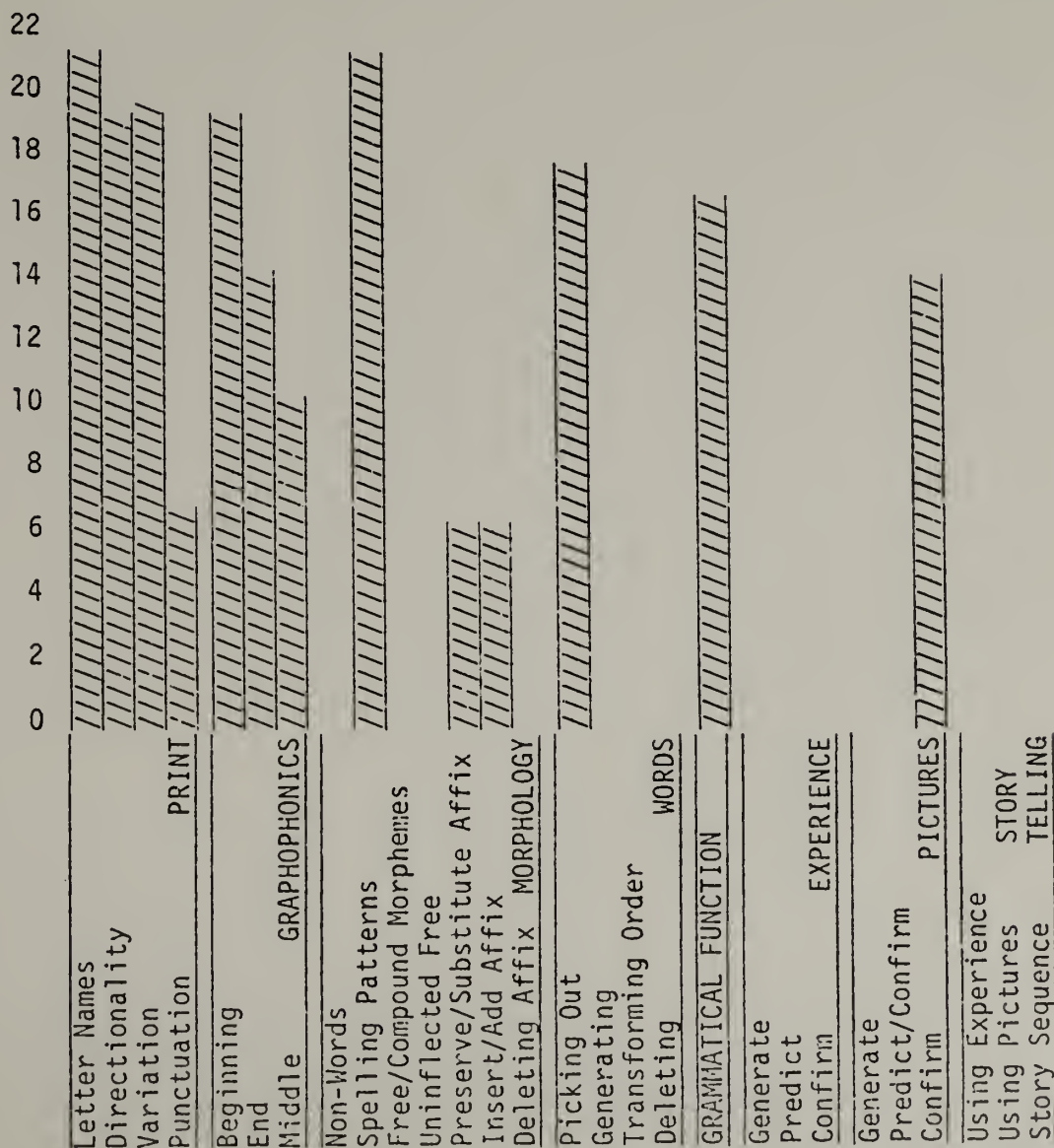


TABLE 35  
 COMBINED SCORES OF TEXTUAL EMPHASIS  
GAMMA ELEMENTARY SCHOOL

Combined  
 Emphasis  
 Scores

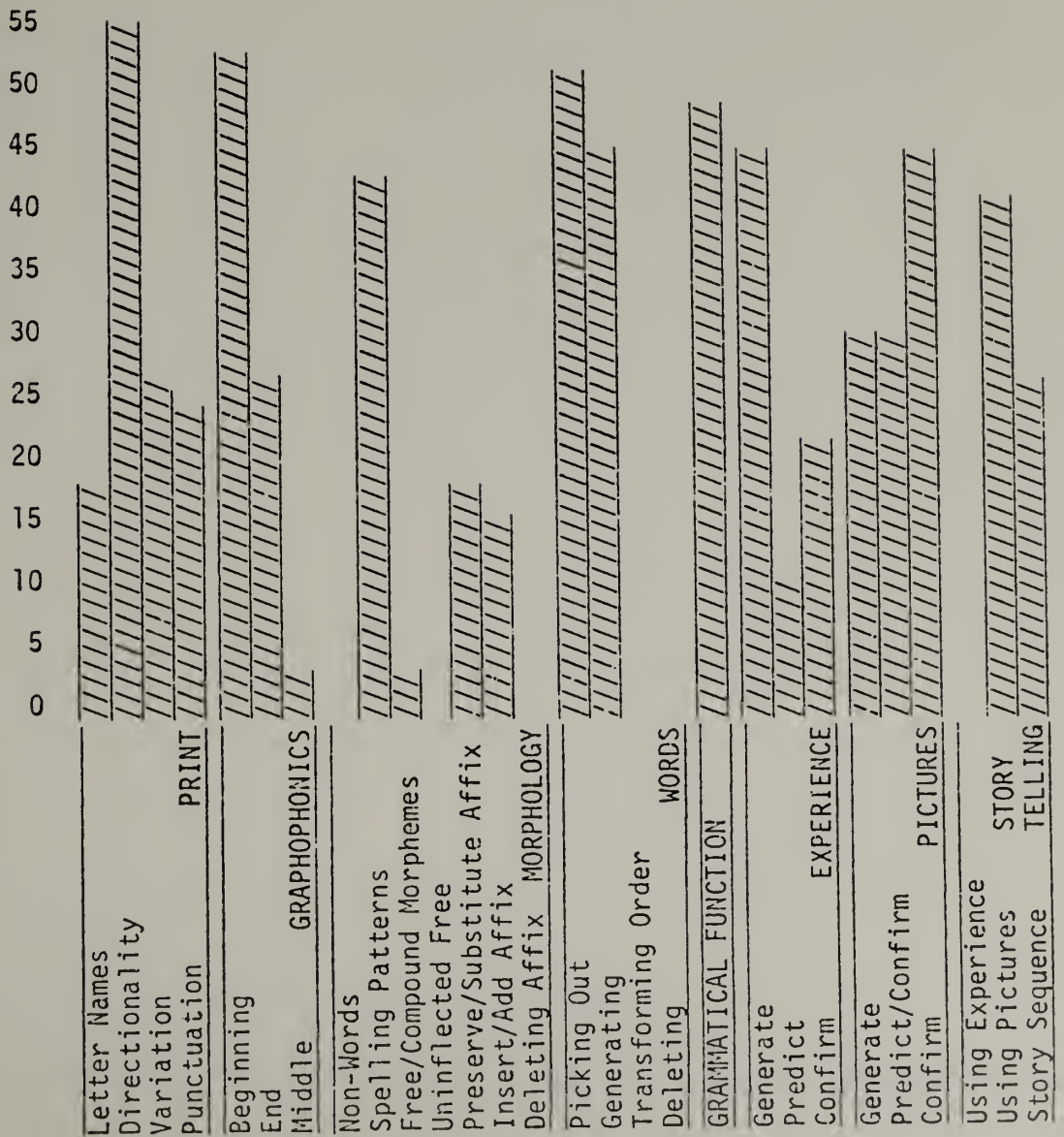


TABLE 36

## INSTRUCTIONAL EMPHASIS

Textbook: Sun Up and Reading Skills  
 Authors: Margaret Early, Elizabeth Cooper, Nancy Santeusano,  
 and Marian Young Adell  
 Publishing Company: Harcourt, Brace, Jovanovich, Inc.  
 Publishing Date: 1974

Emphasis  
Scores

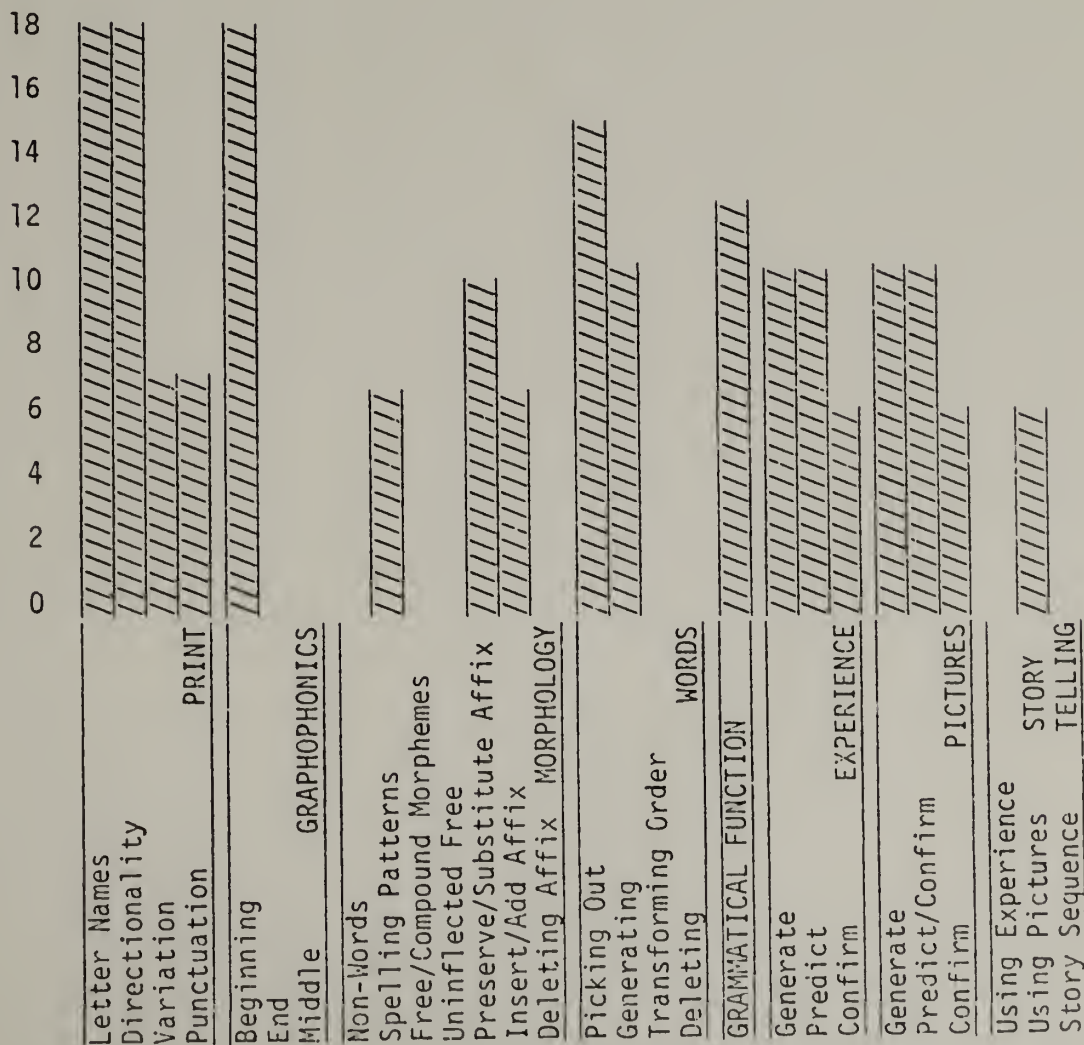


TABLE 37

INSTRUCTIONAL EMPHASIS

Textbook: A Happy Morning  
 Authors: Margaret Early, Elizabeth Cooper, Nancy Santeusanio,  
 and Marian Young Adell  
 Publishing Company: Harcourt, Brace, Jovanovich, Inc.  
 Publishing Date: 1974

Emphasis  
 Scores

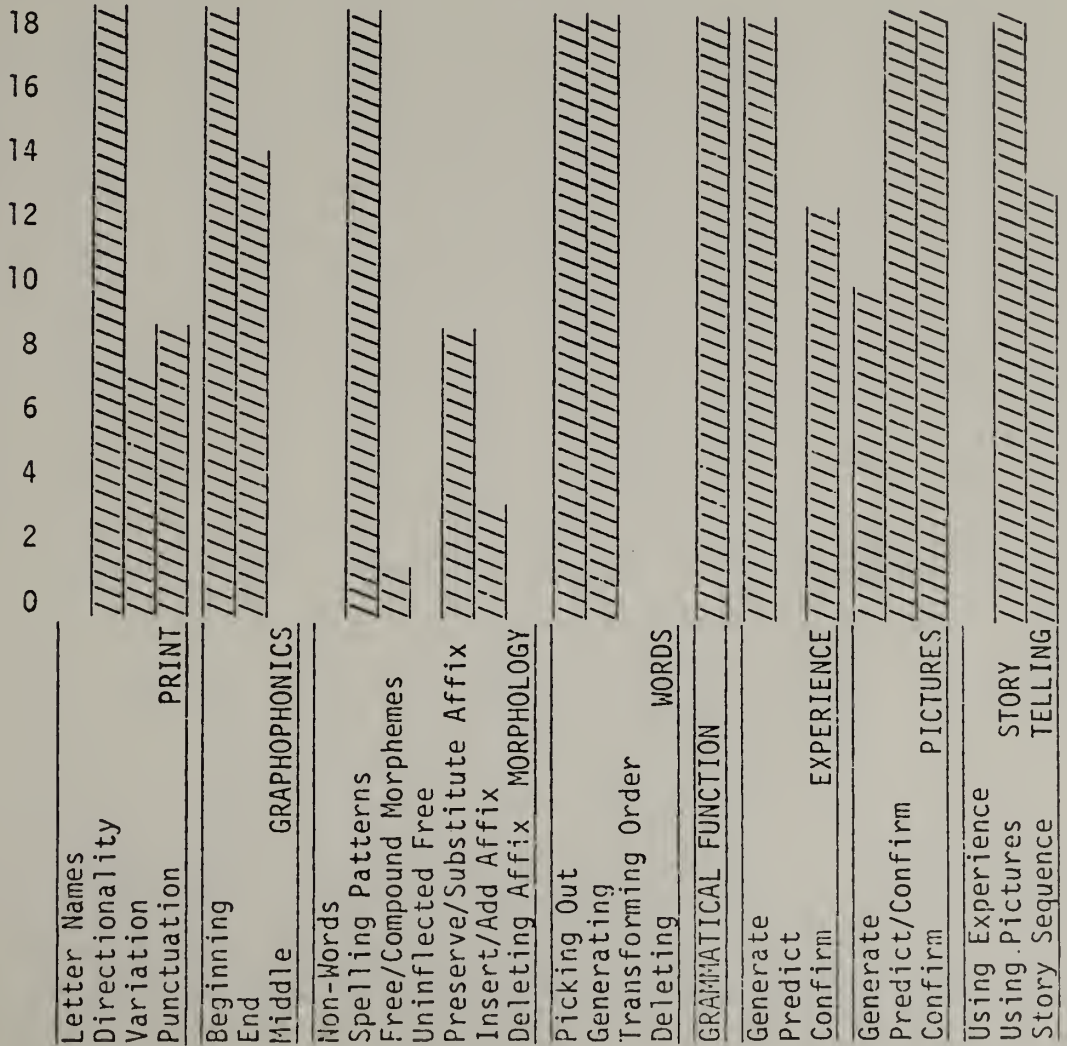
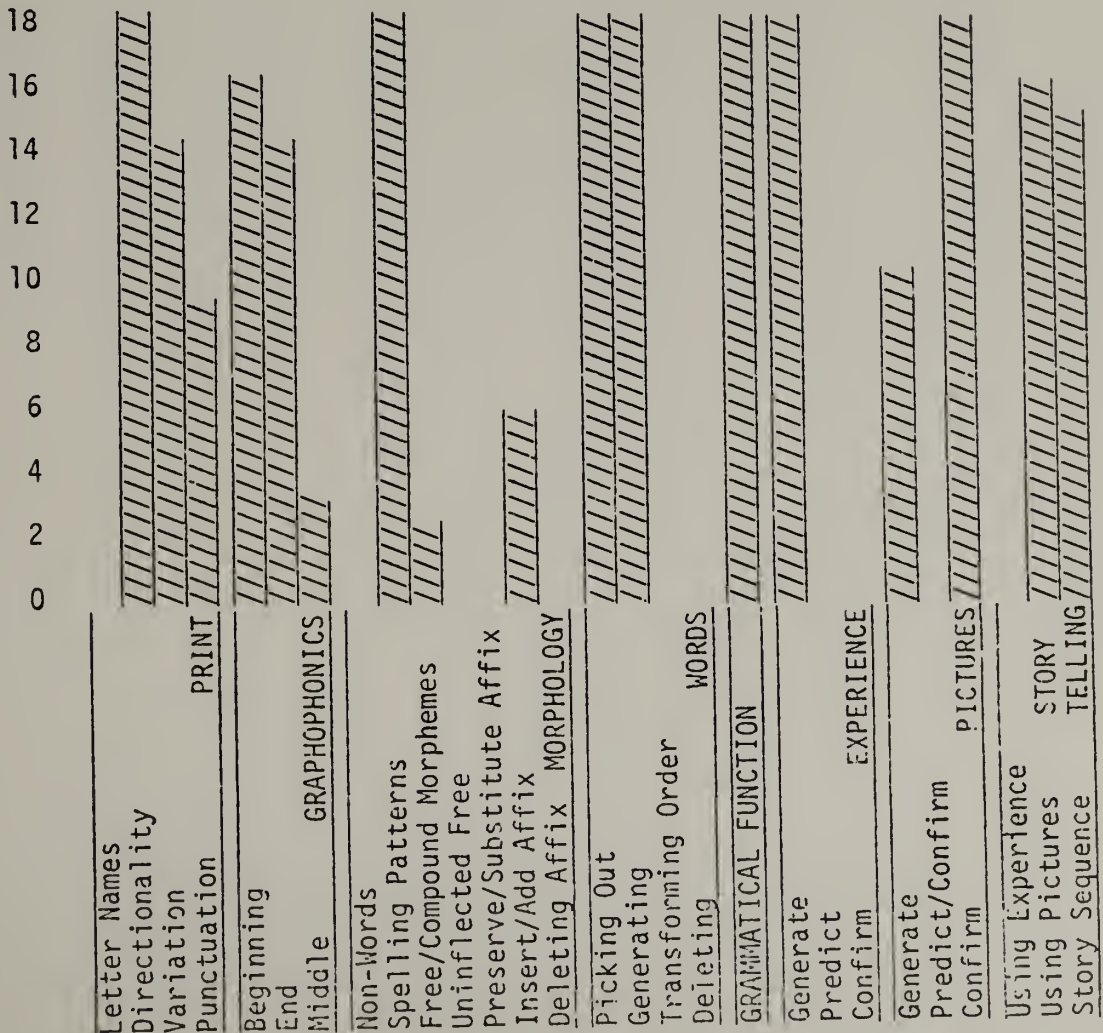


TABLE 38

## INSTRUCTIONAL EMPHASIS

Textbook: A Magic Afternoon  
 Authors: Margaret Early, Elizabeth Cooper, Nancy Santeusano,  
 and Marian Young Adell  
 Publishing Company: Harcourt, Brace, Jovanovich, Inc.  
 Publishing Date: 1974

Emphasis  
 Scores





APPENDIX G  
DATA TABLES  
OBSERVATION I COMPARED WITH OBSERVATION II



TABLE 39--Continued

SS.ID.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.			
FL 1240	I	X																X		X													
	II	X					X	X			X		X	X					X								X						
ACQ/LOSS																																	
GS 0117	I			X																X													
	II			X			X							X						X													
ACQ/LOSS																																	
HA 0270	I	X		X	X	X	X	X					X	X				X	X								X						
	II	X		X	X	X	X	X			X		X	X					X	X							X						
ACQ/LOSS																																	
IL 9200	I			X	X	X		X						X				X								X		X					
	II			X	X	X		X			X		X	X					X							X		X					
ACQ/LOSS																																	
JK 0911	I	X	X	X	X	X	X	X			X		X	X				X									X						
	II	X	X	X	X	X	X	X			X		X	X				X									X		X				
ACQ/LOSS																																	
KD 6231	I	X		X	X	X	X	X			X			X				X									X						
	II	X		X	X	X	X	X			X			X				X									X						
ACQ/LOSS																																	
LT 1114	I																			X								X					
	II																			X								X					
ACQ/LOSS																																	
MC 0316	I		X																	X	X							X					
	II		X																	X	X							X					
ACQ/LOSS																																	

TABLE 39--Continued

SS.ID.		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.		
NT 0910	I															X			X														
	II	X													X																		
ACQ/LOSS		A				A							A						L	A	L				L								
OD 0429	I	X											X			X			X							X							
	II	X				X	X	X				X	X		X	X			X							X							
ACQ/LOSS						A	A	A					A																				
PC 0818	I	X																								X							
	II	X				X	X	X				X			X												X						
ACQ/LOSS						A	A	A				A			A											L							
Column																																	
Sub-Totals																																	
A's:	1	7	5	8	2	1	7	2	4		7	2	4		9	1		1							1	1	1	1	1	1	1	1	
L's:			1	1	1	1		2			2	2	4		5	4		3	1	5					1	5	2	2	2	2	2	2	





TABLE 39--Continued

SS. ID.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	
Column Sub-Totals																															
A's:	2	1	1	7	8	8	4	4	1	1	7	7		7			3	4	4	1	1	3	1	3	3	1				1	
L's:							1										4	4		6	6	3		5	2						
Population Totals																															
A's:	3	1	1	13	12	15	6	1	1	14	14	2	11	2	11		3	13	2	2	1	4	1	4	1	4	1	1	1	2	
L's:					1	1	2	1	1				2	2			10	10	10	6	6	1	10	2	1	10	2	1	2	2	





