

CANADIAN THESES ON MICROFICHE

I.S.B.N.

THESES CANADIENNES SUR MICROFICHE



National Library of Canada
Collections Development Branch

Canadian Theses on
Microfiche Service

Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Direction du développement des collections

Service des thèses canadiennes
sur microfiche

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE



National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Division / Division des thèses canadiennes

Ottawa, Canada
K1A 0N4

54008

0-310-06038-3

PERMISSION TO MICROFILM — AUTORISATION DE MICROFILMER

Please print or type — Écrire en lettres moulées ou dactylographier

Full Name of Author — Nom complet de l'auteur

Margaret Anne O'Brien

Date of Birth — Date de naissance

Apr. 14, 1948

Country of Birth — Lieu de naissance

Canada

Permanent Address — Résidence fixe

708 - 2074 Robic Street
Halifax, Nova Scotia
B3K 5L3

Title of Thesis — Titre de la thèse

Four Adults Learning to Read

University — Université

University of Alberta

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

Ph. D.

Year this degree conferred — Année d'obtention de ce grade

1981

Name of Supervisor — Nom du directeur de thèse

Dr. Grace Malicky

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

Date

Aug 31, 1981

Signature

Margaret A. O'Brien

THE UNIVERSITY OF ALBERTA

Four Adults Learning To Read

by

(C) Margaret Anne O'Brien

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF Doctor of Philosophy

Elementary Education

EDMONTON, ALBERTA

FALL, 1981

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR Margaret Anne O'Brien
TITLE OF THESIS Four Adults Learning To Read
DEGREE FOR WHICH THESIS WAS PRESENTED Doctor of Philosophy
YEAR THIS DEGREE GRANTED FALL, 1981

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(SIGNED) *Margaret A. O'Brien*

PERMANENT ADDRESS:

*Mount Saint Vincent University
166 Dunbrack Highway
Halifax, N.S. B3J 2J6*

DATED *August 14*.....1981

THE UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Four Adults Learning To Read submitted by Margaret Anne O'Brien in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

Grace Melick

Supervisor

J. H. ...

Sam. Stridge
A. ...

S. A. Robinson

External Examiner

Date August 12, 1981.....

10

Abstract

This study explored the adult literacy learning process from a reading perspective. A field-based, comparative, case study approach was used. Four adults enrolled in an Adult Basic Education literacy program were observed over three and one half months in a classroom setting: one at a beginning reading level, three at approximately a mid grade three reading level.

Three exploratory questions guided the collection of data. 1. What reading strategies do adults participating in a beginning literacy program use? a) Do these strategies change during the program? b) Is there a relationship between change or lack of change in the reading strategies and the nature of the instructional program? c) Is there a relationship between change or lack of change in the reading strategies of these adults and factors outside of the instructional program? 2. What are the perceptions of reading and learning to read of adults enrolled in a beginning literacy program? 3. Why do adults enroll in beginning literacy programs?

The following strategies were used to infer subjects' reading strategies: analyses of subjects' oral reading errors, analyses of subjects' unaided recalls, observation of subjects during reading tasks, subjects' verbal self-reports and subjects' responses to retrospective questions. Categorization systems and running anecdotal records were used to document the content of the

instructional program. Structured interviews and subjects' self-reports provided data on their concepts of reading and learning to read, their reasons for enrolling in the program, their perceptions of the program and their perceptions of the research tasks.

The findings of the study were discussed in relation to selected literature on children's literacy learning, adult learning theory and studies of adult literacy programs conducted from an adult learning theory perspective. From these findings and the discussion of the literature several directions for future research emerged.

Two "conceptual categories" emerged from the findings of this study and the synthesis of the findings with the findings of other studies of adult literacy learning: 1. **Diversity of Illiterate Adult Learners:** There was great variation in the backgrounds, reasons for enrolling in the program and reading strategies among the four subjects. 2. **The Illiterate as an Adult Learner:** The subjects showed many of the characteristics identified in the literature as typical of adult learners.

ACKNOWLEDGEMENTS

Thank you:

To Dr. G. Malicky, my supervisor, for sharing her time and knowledge so generously.

To Dr. A. MacKay and Dr. W. Fagan, members of my supervisory committee, for their perceptive questions and constructive suggestions.

To Dr. P. McFetridge and Dr. J. Paterson, members of my examining committee, for taking my thinking in new directions.

To Dr. S. Robinson, the external examiner, for his careful reading of the thesis and his constructive comments.

To the teachers and the four subjects for sharing their world.

To my parents for opening the same doors for their daughter as they did for their sons.

Table of Contents

Chapter	Page
I. THE PROBLEM	1
A. Need for the Study	3
B. The Study	5
C. Organization of the Study	6
D. Theoretical Position	7
II. SELECTED LITERATURE	10
A. Studies of Adult Literacy Programs	11
Adult Learners	11
Adult Basic Education Studies	13
The British Program	17
B. Studies of Children's Reading Strategies	21
Studies of Beginning Reading	21
Studies of Proficient and Less Proficient Readers	29
C. Studies of Discourse Comprehension	34
Influence of Text Organization	36
Role of Prior Knowledge	37
Inference	44
III. THE STUDY	48
A. Working in the Field	49
Pre-Field Work Stage	49
The Field Work Stage	53
Selection of Subjects	53
A Day in the Field	54
Establishing a Working Relationship	56
B. Collection of Data	59

Reading Strategy Sessions	60
Analysis of Data from Oral Reading Tasks ...	62
Analysis of Recall Data	69
Concepts of Reading and Learning to Read ...	71
Documentation of Instructional Program	72
Outside Reading Activities	74
Achievement and Ability Measures	75
C. The Interpretation Process	76
Credibility	77
Transferability	78
Dependability	79
Confirmability	80
IV. BOB, KAREN AND LISA	82
A. The Setting	82
B. The Three Students	84
Who were they?	84
Why did they come?	87
.....	91
C. Subjects' Reading Strategies at the Beginning of the Study	96
Data from Oral Reading Tasks	96
Data from Unaided Recalls	105
D. The Program	109
Individualized Periods	110
Phonics Classes	113
Group Reading Classes	120
USSR Periods	127

E. Self-Directed Activities	130
F. Subjects' Reading Strategies During The Study	136
Subjects' Perceptions of the Tasks	136
Strategies Inferred from Oral Reading Tasks	141
Strategies Inferred from Unaided Recalls ..	160
Summary of Reading Strategies	171
G. Role of the Program in the Learning Process ..	173
Relationship of the Program to Reading Strategies	173
Relationship of the Program to Self-Directed Activities	179
Relationship of the Program to Achievement	182
H. Perceptions of the Program	182
Subjects' Perceptions of the Program	182
Teachers' Perceptions of the Program	186
V. MARY	189
A. The Beginning Reader	189
Who Is She	189
Why Did She Come	190
What Are Her Concepts of Reading	193
B. Her Program	196
First Term	196
Individualized Periods	197
Phonics Classes	203
Reading Classes	208
USSR Periods	212
C. Self-Directed Activities	212
D. Oral Reading Tasks	214

E. Unaided Recalls	229
F. Role of the Program in the Learning Process ..	234
Relationship of the Program to Reading Strategies	235
Relationship of the Program to Concepts of Reading	238
Relationship of the Program to Mary's Achievement	239
G. Mary's Perceptions of the Program	239
VI. Summary and Discussion of the Findings	241
A. Summary of the Findings	242
Subjects and Their Reasons for Enrolling in the Program	242
Subjects' Expectations of the Program	245
Subjects' Concepts of Reading and Learning to Read	246
Subjects' Reading Strategies and Factors Influencing These Strategies	247
Subjects' Perceptions of the Program	253
Teachers' Perceptions of the Program	254
Self-Direction	255
B. The Findings and the Field of Reading	256
The Findings and Studies of Children Identified as Poor Readers	256
The Findings and Beginning Reading Strategies	258
Use of Picture Clues as a Beginning Reading Strategy	262
C. Studying the Learning to Read Process	263
Techniques for the Study of Reading Strategies	264
Influence of Text and Task Perceptions on	

'Subjects' Reading Strategies	267
Participant Observation as a Research Technique	272
D. The Findings and Adult Learning Theory	273
Self-Direction	274
Achievement and Satisfaction	275
Learning Environment	276
Relevance of Program Materials	276
Directions for Future Research	280
E. Toward a Theory of Adult Literacy Instruction	285
Diversity of Illiterate Adult Learners	286
The Illiterate as an Adult Learner	287
Reference List	289
APPENDIX A	298
APPENDIX B	303
APPENDIX C	312
APPENDIX D	317
APPENDIX E	323
APPENDIX F	334

I. THE PROBLEM

Illiteracy is often viewed as a problem unique to 'Third World', underdeveloped countries. And, using the commonly accepted benchmark of literacy, five years of formal schooling, North America does not have a significant literacy problem. According to results of major censuses taken in the United States in 1970 and in Canada in 1971, only seven percent of the out of school population of Canada aged 15 and over has less than a grade five education (Thomas, 1976) and eleven percent of the out of school population of the United States aged 17 and over has less than a grade five education (Hunter and Harman, 1979).

Is a grade-five level of education, however, sufficient to enable a person to function effectively in North American society? Twenty-five years ago Gray (1956) warned that "as a community becomes more literate, its reading matter usually becomes more varied and difficult. Hence a level of achievement that was suitable at the outset soon proves inadequate" (p.27).

The results of two surveys of the ability of United States adults to cope with the literacy demands of North American society suggest that Gray's prophecy has been realized in North American society. Despite the fact that only 11 percent of the population of the United States is considered illiterate officially, results of the Harris survey (1971) indicated that 15 percent of the population of the United States had serious reading deficiencies which

interfered with their ability to cope with everyday reading tasks in North American society, such as completing applications and using directories. The surveys conducted as part of the Adult Performance Level Project (Adult Functional Competence, 1975) concluded that 20 percent of the American population cannot effectively use reading, writing, computational and problem solving skills to meet the demands of the various roles which they play in society, as workers, as parents, as consumers and as community members. Twenty-one percent of the population showed serious problems in meeting the reading demands of North American society.

How, then, are these people in need of literacy instruction to be helped? Hunter and Harman (1979) suggest that the solution to the problem will require "an integration of insights from different disciplines" (p.4).

What insights does the field of reading have to offer? As the authors of *The World of Literacy* noted, surprisingly few. One of the "unexpected findings" in their literature review of the effectiveness of world literacy programs was that "researchers working on the question of literacy for school children overlap little with those working in adult literacy" (*World of Literacy*, 1979, p.6). They further suggested that because of the differences between adults and children, little of the research on children's literacy learning was directly applicable to adults' literacy

learning. '

A. Need for the Study

The literature search conducted by this researcher supported the conclusions of the authors of *The World of Literacy*. The field of reading has not seriously explored the problem of adult literacy learning. The majority of the research on adult literacy focuses on demographic and psychological characteristics of adult illiterates. A small number of studies involve comparisons of reading approaches. However, the programs compared are usually slight modifications of programs which were originally designed for children. Kavale and Lindsay (1977) have suggested that one of the reasons for the lack of success of many Adult Basic Education (ABE) literacy programs is the lack of a research base to justify the teaching approaches used.

Administrators of ABE literacy programs have not typically been concerned with reading methodology per se, but rather with affective and organizational aspects of literacy programs, such as individualized learning (Thomas, 1976). Mezirow, Darkenwald, and Knox (1975), in a study of ABE classrooms, found that "the mode of instruction in many ABE classrooms is that of the elementary school of the 1920's" (p. 18). Hunter and Harman concluded (1979) that "high quality programs, readily accessible to those who seek them,

This question of relevance of research on children's literacy learning to adult literacy learning will be addressed in the discussion chapter, Chapter VI.

are an urgent need that cannot be overlooked even as we search for long-range strategies"(p.9). Hunter and Harman feel that the long-range strategy must include "a radical rethinking of the purposes and patterns of education as a function of the larger social system"(p.8).

The field of reading could contribute much to the development of 'high quality' programs for adult illiterates. Before reading professionals can assist in developing effective literacy programs, however, they must gain an understanding of how adults presently learn to read. As Jackson noted(1968), with respect to research on teaching, it is important "to seek an understanding of the teaching process as it is commonly performed before making an effort to change it"(p.175). And, as Strang(1970) pointed out with respect to teaching children to read:

"Understanding how children learn is prerequisite to teaching them. The question 'What are their reading processes?' takes first place - not 'What methods of teaching reading are best?'"(p.11). This study is an attempt to begin to find answers to the questions: "What are the reading processes of adults of low reading ability?" and "How are these processes affected by current instructional practices?"

B. The Study

Case studies of four adults learning to read are presented, based on data collected during a three and one half month period of observations in an Adult Basic Education literacy program. The development of reading strategies and the influence of the reading content of the instructional program on this development provided the focus for the observations and data collection in this study.² Other factors such as reasons for entering the program, concepts of reading, perceptions of the program and influence of family and friends on the learning process were also explored. The principles of participant observation guided the data collection in the field. Questioning, self-reports, observational systems and clinical reading techniques were used in the collection of data.

The findings of this study should be viewed, not as leading directly to theory, but rather, as providing insights into the adult literacy learning process. The findings provide the beginnings of answers to questions concerning the relevance of adult learning principles and reading theories and practices to adult literacy instruction; provide some support for the findings of the few studies conducted within an adult learning framework, which have attempted to characterize the adult literacy

²Dunkin and Biddle(1972) and Wolcott(1975) have noted that one researcher cannot focus on all aspects of a research setting and so must choose those aspects most useful to the researcher's purposes.

learning process; and provide directions for future research in the area of adult literacy learning. Over time, the insights from this study, synthesized with the findings of similar studies of adult literacy with a reading focus (hopefully underway elsewhere or to be conducted in the future), and synthesized with the findings of studies of adult literacy with adult learning theory and/or sociological focuses, should contribute to the development of a theory of adult literacy instruction.

C. Organization of the Study

Implicit in a research study of this nature is the theoretical bias of the researcher. For this reason this chapter concludes with a statement of the theoretical position of the researcher. Chapter II presents the literature which influenced the focus of the research study, the choice of data collection techniques and the interpretations of the findings. So that readers may have "an adequate basis for rendering their own judgments concerning the analysis" (Wolcott, 1975, p.124) and conclusions, data collection and analysis techniques are extensively described in Chapter III and the case studies, presented in Chapter IV and Chapter V, contain much primary data. Chapter VI discusses the findings in relation to adult-learning principles and reading theories, and also discusses the research methodology. In addition, the major insights from this study and suggestions for future research

are presented.

D. Theoretical Position

Reading is the process of understanding written language. It begins with a flutter of patterns on the retina and ends (when successful) with a definite idea about the author's intended message. Thus reading is at once a 'perceptual' and a 'cognitive' process. (Rumelhart, 1975, p.573)

Mature reading is a complex process which cannot be represented by unidirectional models, either 'bottom-up' or 'top-down', as has been attempted by so many theorists. The mature reading process is the product of the simultaneous interaction of various independent knowledge sources (Rumelhart, 1975). Four categories of knowledge sources used in the reading process have been identified in the literature: print knowledge, language knowledge, world knowledge and structural knowledge. The extent to which these sources are used by a reader in a particular reading situation will depend upon the nature of the reading task and the content of the reader's knowledge structures.

Included in the category of print knowledge are the following: knowledge of the conventions of print such as punctuation, spacing and directionality (Clay, 1967; Downing, 1970, 1972; Reid, 1966); graphic knowledge, knowledge of the features of letters; and graphophonic knowledge, that is, knowledge of the relationships between letters and letter clusters and the oral form of the language (Goodman, 1976;

Smith, 1970; Kintsch, 1977; Rumelhart, 1977; Ruddell, 1976). Language knowledge includes syntactic knowledge, knowledge of the patterning of words in the language; semantic knowledge, knowledge of the concepts associated with the words of the language (Goodman, 1976; Smith, 1970; Kintsch, 1977; Rumelhart, 1977; Ruddell, 1976); and pragmatic knowledge, knowledge of the way language is used in the culture (van Dijk, 1977).³ Specific knowledge about everyday events in the culture such as going to a restaurant, (referred to as 'scripts' by Schank, 1975 and Schank and Abelson, 1977; and as 'frames' by Winograd, 1977 and van Dijk, 1977), and general background knowledge of the topic and/or the author (van Dijk, 1977) are included in the category of world knowledge. Structural knowledge includes knowledge of the various organizational structures of written language such as narratives, scientific articles and editorials (Kintsch, 1977, van Dijk, 1977) and knowledge of explicit writing cues typically used by authors, such as headings, topic sentences, summary statements and phrases such as "The main point of the argument is..." (van Dijk, 1977).

Knowledge sources are used in the mature reading process to generate "predictions" or "expectations" and to confirm, reject, or modify these "predictions" or "expectations".

³ Some writers use the term pragmatic in a broader sense to include world knowledge.

While knowledge sources are key to the reading process, the process itself is directed by the reader's interests, attitudes and goals, and is dependent upon the reader's cognitive strategies, particularly inferencing, organizing and synthesizing, and hypothesis generating and testing (Ruddell, 1976).

Learning to read is a process through which gradually readers learn to utilize these various knowledge sources in the reading process and through which they develop strategies for using these knowledge sources. Some knowledge sources, such as syntactic and semantic language knowledge, are often well developed in the beginning reader, whether the reader be a child or an adult. Beginning readers bring great variation in world knowledge to the task. Other knowledge sources such as print knowledge and structural knowledge are less well developed. As a result facilitating the learning to read process should involve building and expanding knowledge sources as well as encouraging the development of appropriate strategies for using these knowledge sources in the reading process.

II. SELECTED LITERATURE

The reading of literature from many areas including literacy, adult learning theory, reading theory, reading research, cognitive psychology and qualitative research methodology was an ongoing part of this study. Prior to the study, the literature influenced the focus of the study and the choice of research techniques. Following the analysis of the data, the researcher did much rereading of this literature and read and reread new literature sources as the findings were interpreted. No attempt is made to review all of the literature read during the study. Rather, this chapter presents the literature which was the most influential to the researcher in determining the directions and interpretations of the study and which, thus, will be most beneficial to the reader in understanding the conceptual framework and interpretations of this study. The literature directly related to the general methodology of the study is discussed in the methodology chapter, chapter III.

This chapter is divided into three sections. The first section presents the findings of three major studies of adult literacy programs, conducted from an adult learning theory perspective, which attempted to gain an understanding of the adult literacy learning process. The two remaining sections contain literature from the fields of reading, cognitive psychology and artificial intelligence, which attempt to characterize the reading process and the learning

to read process. The first of these sections summarizes studies of children learning to read. The final section summarizes the insights into the reading process emerging from the fields of cognitive psychology and artificial intelligence. The review of this literature focuses on theoretical concepts and studies directly relevant to the identification of knowledge sources and strategies used in the reading process by both mature, proficient readers and children learning to read.

A. Studies of Adult Literacy Programs

Three studies of adult literacy programs are reviewed. Two of these studies are studies of Adult Basic Education (ABE) literacy programs. The third study investigated the national literacy campaign conducted in Britain in the late 1970's. Although the researchers of these studies, in their extensive reports, never officially declare their theoretical perspectives, it is apparent from reading their studies, that they conducted the studies from an adult learning theory perspective. Therefore, an overview of the major premises of adult learning theory are presented prior to the reviews of the studies.

Adult Learners

Numerous articles exist on the pedagogy of adult education, commonly labelled "andragogy". Most of this work is based on the work of Kidd (1973) and Knowles (1973). Kidd and Knowles maintain that the pedagogy traditionally used

in teaching children, is not appropriate to the teaching of adults. They have identified five characteristics of adult learners which must be accounted for in a theory of adult instruction:

1. The adult has a need and a capacity to be self-directing. This need develops slowly through pre-adolescence and accelerates rapidly through adolescence.

2. Learning must be related to the experience of the adult learner. The adult brings to the learning experience a rich and varied background. Knowles claims that an adult's experience is his identity; whereas a child often defines himself by external factors in his environment such as parents, school and church. The adult's experience cannot be ignored in the learning process. Kidd notes that it is important to know not only what kind of experience the learner has had, but also what meaning this experience has for him.

3. The adult learner must view the learning situation as meeting his immediate needs. While the child in the learning situation is often future oriented, the adult learner has an immediate problem to be solved. The adult is ready to learn those things that he perceives he needs to learn. He comes to a learning situation because he is experiencing difficulty in coping with some current life problem. Kidd(1973) noted that "adults expect to find

'To aid the writer and the reader of this study "he" and "his" refer to both males and females.

relevance both in the objectives and in the methods employed" (p. 121).

4. The adult learner must experience achievement and satisfaction in relation to his expectations and needs. Whereas the child looks to others to assess success, the adult often has his own standards based on his own set of goals.

5. The adult must feel secure in the learning situation. A learning environment must be created which is challenging yet not threatening. Kidd notes that many adults believe the stereotype of the adult learner as inferior to the child learner. Many adults bring to learning situations the scars of past failures in learning experiences such as formal schooling. Kidd (1973) claims that "sometimes the first essential step is to make him feel that the new learning situation is new, that it is planned for him, that it has no association whatsoever with failures in the past" (p. 91).

Adult Basic Education Studies

Much of the recent literature on literacy instruction advocates the application of the principles of adult learning theory to literacy instruction. Program directors are admonished to make their programs functional and to allow for greater student participation in program

development and operations. Adult Basic Education (ABE) programs are the major providers of literacy instruction in North America. Yet, the desired characteristics of a functional program and student involvement were rarely evident in two studies of ABE programs in North America (Mezirow, Darkenwald and Knox, 1975; Thomas, 1976).

Mezirow et al. conducted studies of ABE programs in six major United States cities. They observed ABE classes and interviewed directors, teachers and students. As others before have found in studies in classrooms in public schools (Chall and Feldman, 1966), classroom practice did not always reflect stated goals and objectives of programs. While, officially, program goals included life coping skills, in practice most of the programs focused on the traditional '3R's', reading, writing and arithmetic. Further, the methodology used to teach these '3R's' reflected the pedagogy of elementary schools prior to the progressive movement (p.18). Recitation, drill and memorization were common practices in the ABE classrooms observed.

In the Thomas study several teachers openly admitted that they focused on communication skills, particularly

"Functional literacy" programs are usually considered to be programs which teach the basic skills of reading, writing and computation within the context of a focus on 'functional' topics, that is, topics relevant to the lives of the participants such as health care, consumer economics. Mezirow et al found some evidence to suggest that programs that emphasized content of direct relevance to the lives of the participants had lower dropout rates than did programs which focused on the '3R's'.

reading and writing, and that they did not consider the teaching of life coping skills part of their job.

Individualized instruction is, according to teachers and administrators in both studies, the preferred organizational pattern for teaching adults. Individualized instruction is, as Mezirow et al. put it, the "sacred cow" of ABE programs. "Every director gives at least lip service to the necessity of individualizing instruction" (p.109). Yet, "individualized instruction is widely misconstrued to mean individualized prescriptions to meet program rather than learner goals" (p.153). All students follow the same program; they just enter at different points and proceed through the program at different rates.

Both Thomas and Mezirow et al. found great diversity in the backgrounds of the learners in the ABE programs. Teachers identified diversity of students, particularly diversity with respect to ability and achievement levels, as a major obstacle in delivering effective instructional programs.

Mezirow et al. identified two basic categories of motivations of students for entering ABE programs: 1) motivations related to adult work life, and 2) motivations related to family or community life or individual growth. Age and sex are related to these categories. The majority of young students, those in their teens to mid-twenties, enter

⁷ Thomas did not comment on the classroom implementation of the philosophy of individualized instruction.

ABE programs for job-related reasons. Older students, beyond the age of 45, enter ABE programs for self-improvement or social reasons. Women in their mid-twenties to mid-forties often enter ABE programs to become better, "more fit" mothers. Since the major consumers of ABE programs are young adults in their late teens and early twenties, job-related reasons are the major reason given by those entering ABE programs. A small but significant proportion of participants are in the "concerned mother" category.

No matter what their reasons for entering ABE programs, all participants are concerned with their progress. Hidden program philosophy and student needs seem to be in conflict in this area (Mezirow et al., 1975). Administrators and teachers in the classrooms observed in the Mezirow et al. study subscribed to an unwritten "ideology of minimum failure" (p.28). Many students are perceived as entering programs with unrealistic expectations and unrealistic time lines for reaching goals. Administrators and teachers fear that students will become discouraged and drop out when they realize their expectations are unrealistic. A deliberate effort is made to minimize failure and to accent small successes. Students are often not informed of results of standardized tests, and often are uncertain as to their level of functioning. This deliberate blurring of benchmarks as Mezirow et al. call it, is a source of frustration and confusion for students in ABE programs, particularly students at the intermediate and advanced levels. Students

seek out and want signs of progress toward their goals, but often they must be satisfied with inferring progress based on state of progression through programmed materials.

Why, then, do so many students stay in ABE programs despite perceived problems such as the above? As Thomas noted, frequently the student does not care about the perceived lack of program relevance to his life, or lack of student direction in the program. "In many cases they are so delighted that someone is helping them at last, that this is the only thing that matters" (p.135). This personalized concern and attention to students was one of the positive factors that both Mezirow et al. and Thomas found in their studies. Administrators consistently rated personal characteristics such as warmth, sense of humour and empathy as the first criterion to be considered in hiring ABE instructors. Both Mezirow et al. and Thomas found this hiring practice reflected in observed classroom practices. They characterized the learning environments of many classrooms as warm, friendly, relaxed places presided over by teachers who cared for their students.

The British Program

Jones and Charnley (1978) conducted a qualitative study of the impact of a national literacy campaign in Britain from 1975 to 1977. This approach to literacy differed from the ABE programs described above in three main ways. First, there was a strong national as well as local involvement. The central government established a National Literacy

Resource Agency to coordinate the campaign, and the national television system, the BBC, played a key role in the program. Second, particularly in the early stages of the campaign, volunteer tutors, as opposed to paid professionals, were the main deliverers of the literacy instruction. * Third, the content of the programs did reflect some aspects of adult learning theory. Tutors were trained and encouraged to develop their programs around student identified needs. Jones and Charnley found that tutors did use this approach, and in fact, were reluctant to use any commercial materials, developed either for children or adults. They did find, however, that the context of the learning situation did not reflect adult learning theory. Students did not take on roles as partners in the learning experience. The tutor was the "fount of all knowledge in literacy" (p.85).

Despite program differences, many of the findings of Jones and Charnley were similar to those of Mezirow et al. and Thomas. Jones and Charnley also found great diversity in the backgrounds of the learners and in their reasons for entering the program. Job, personal and social reasons were again the major reasons given for entering the program. Unlike the findings of the ABE studies, job reasons were not the most often cited reasons for entering the program. "By

* However, as the program developed they moved toward group instruction because of problems with monitoring the quality of one-one tutoring situations, and also because of a belief that the interaction of group situations was important in developing confidence in the students.

far the most common reasons for enrolling stemmed from challenges and relationships in social life or from personal self-image" (Jones and Charnley, 1978, p.77).

△ Diversity in reading achievement levels was an unanticipated problem. The television programs and tutor training sessions had portrayed the illiterate as functioning at very low, almost negligible, reading levels. In fact, only 30 percent of those who participated in the program could be considered to be at this low level. This underestimation of the reading abilities of the target population also led to underuse of the instructional television segments and supplementary materials prepared by the BBC.

Jones and Charnley also identified lack of benchmarks of progress as a problem with the program. However, this lack was perceived as a problem primarily by tutors, not students as in Mezirow et al.'s study. This discrepancy in findings of the two ABE studies and the study of Jones and Charnley may be related to differences in the teaching methodologies employed. The ABE programs followed a traditional elementary school curriculum and so, perhaps, students expected traditional benchmarks such as grades in that learning context. Tutors, socialized to formal academic systems, may also expect such benchmarks. For students participating in a nontraditional program, which stressed instructional content relevant to their everyday lives, experiencing progress in tasks related to their everyday

lives may provide sufficient benchmarks. A more fundamental difference, which Jones and Charnley suggest, may be in differences in perceptions of success of the program.

Jones and Charnley noted that the great strides in literacy skill promised by the program were not borne out in practice. In many cases progress was slow. Tutors may have been acutely aware of this lack of progress. However, in the eyes of most of the students who persisted in the program the program was successful. This success was due to a key factor which Jones and Charnley labelled as "confidence". Students reported greater confidence in themselves, in their social relationships with their families and others, and in their work situations. Jones and Charnley attributed this growth in confidence to the context of the learning situation (interactions with caring tutors and with others in groups) rather than to the content of the learning situation (interest-based curriculum).

While the studies reviewed in this section provide many insights into the characteristics of learners in adult literacy programs, they were not concerned with the reading processes of these learners, a major focus of this study.

* This interpretation would be consistent with the adult learner's need to experience achievement and satisfaction in relation to his goals.

B. Studies of Children's Reading Strategies

Prior to the data collection phase of this study, the researcher conducted an extensive literature search and found no studies which attempted to characterize the reading strategies of adults learning to read. However, the literature search identified several in-depth studies of the strategies used by children in the first year of reading instruction and children's concepts of reading in the beginning stages of learning to read. These studies provided clues as to what this researcher might look for in studying the reading strategies of beginning readers and also as to what research techniques might provide insights into their reading strategies. Since many illiterate adults have already experienced failure in reading programs, a major technique, psycholinguistic analysis of oral reading errors, which has been used to differentiate the reading strategies of proficient and less proficient readers will also be presented, along with a discussion of studies which used this technique.

Studies of Beginning Reading

The findings from this literature on the learning-to-read process for children is divided into three sections: 1) studies of the beginning reader's concepts of the conventions of written language, 2) studies of the reading strategies of beginning readers, 3) studies of the influence of instructional variables on the development of reading strategies in beginning readers.

Beginning Readers' Concepts of the Conventions of Print: Several researchers (Biemiller, 1966; Clay, 1966; Reid, 1966; Downing, 1972; MacGinitie and Holden, 1972) have observed that many beginning readers do not have a clear grasp of the relationship of oral language to English orthography. Concepts such as words and letters, which the literate speaker of the language takes for granted, are incongruent with the child's concept of language.

MacGinitie and Holden (1972) investigated children's concepts of word boundaries in speech using 84 children aged five to six. Using poker chips, they had children tap a poker chip for each word in sentences which the children repeated after the experimenters. Results showed that written words are not natural units of speech for children. Concrete words were easier to isolate than articles or prepositions, which the children often identified as part of a unit with a concrete word. In a follow-up study, MacGinitie and Holden unsuccessfully conducted a brief teaching session in the use of spaces as word boundaries in written language. They concluded that the first-grade teacher cannot "assume that the concepts can be quickly and easily taught, since printed words do not correspond to the way the child thinks the utterance should be divided" (1972, p. 556).

Reid (1966) conducted three interviews with 12 first-grade pupils, two months, five months and nine months after starting school at age five. The interviews were

loosely structured and the students were encouraged to talk freely about their learning-to-read experiences. In the first interview, conducted in September, many of the children showed poor and confused concepts of words and letters, part of what Reid called the "technical vocabulary" of reading. The second interviews showed a developing clarity of terminology and a beginning awareness of phonic strategies for decoding. By the third interviews the children demonstrated clearer understandings of the concepts of words and letters but some children still showed little understanding of these concepts.

Clay(1966) followed 100 children in their first year of school in New Zealand. Results similar to those of Reid were obtained. Clay used a more direct approach to the problem, asking children to point specifically to words and letters. After one year of instruction 53 percent of the children in Clay's study could not show her a word, 47 percent could not locate a letter in a word, and 59 percent could not find the first letter in a word.

Downing.(1972) replicated Reid's study with 12 first grade English children and obtained similar results. He extended Reid's methodology to include some concrete tasks related to reading-like behavior, and an auditory task in which children were asked to identify a word and a sound. The auditory task consisted of five types of items: a non-human utterance, and four types of human utterances, a phoneme, a word, a phrase and a sentence. In the three

interview sessions only one child consistently identified a word and four children in the third interview identified a phoneme as a single sound. The informal interviews confirmed these confusions regarding words and sounds. Three children in the study showed "little or no observable" development throughout the study. These same children also exhibited little awareness of the communicative aspect of written language.

Beginning Readers' Strategies: Several researchers in the 1960's (Biemiller, 1970; Clay, 1966; Goodman, 1967; Weber, 1970), attempted to gain insights into the reading strategies of beginning readers and the kinds of information used by beginning readers in the reading process through analyses of children's oral reading errors. Results of these studies suggested that the child's oral language knowledge plays a key role in the early stages of learning to read.

Biemiller(1966), through a longitudinal study of two first grade classes, identified three stages of development of decoding strategies in the learning-to-read process. He analysed oral reading errors for graphic proximity to the stimulus word and contextual acceptability. Errors were categorized as contextually acceptable if they made sense in terms of the preceding context. Biemiller concluded that in the initial stage of learning to read children rely strongly on their oral language knowledge. Many of the errors which children made in this stage were contextually appropriate. The second stage which Biemiller identified was

characterized by increased use of graphic information and significant numbers of non-responses to words. Biemiller attributed this non-response phenomenon to increased attention to the graphic information. The third stage was characterized by increased integration of both graphic and contextual information. There was also a decrease in frequency of non-responses during this stage.

Y. Goodman (1967) analysed the oral reading errors of six beginning readers collected during a nine month period, January to November. She concluded that "beginning readers bring their understanding of syntax and semantics to the reading task. A large percent of beginning readers' miscues can be explained in terms of syntax and semantics" (1967, p.254). The works of Clay (1966) and Weber (1970) support this claim. Clay, in a longitudinal observational study of 100 children in the first year of school in New Zealand, found that 72 percent of the substitution errors made by the children in her study were linguistically equivalent to the text. Weber (1970) found that 91 percent of the errors made by the children in the two first grade classes she observed from December to June conformed to the constraints of the preceding grammatical context.

There is also evidence in these beginning reading studies that, by the end of the first year of reading instruction, there are qualitative differences between the reading strategies of high achievers and the reading strategies of low achievers. Throughout the first year of

reading instruction, high achievers become proficient with using graphic knowledge, while at the same time maintaining their ability to use contextual knowledge. Hence by the end of first grade, high achievers are better able than are low achievers to use graphic information. That is, their errors are more graphically similar to the stimulus word than are the errors of low achievers. High achievers are also better able than are low achievers to integrate graphic and contextual information (Biemiller, 1970, Clay, 1966, Goodman, 1967, Weber, 1970).

Biemiller found that the low readers in his study continued to rely on contextual information throughout the year (that is, they stayed in the first stage) and appeared to avoid using graphic information. In contrast, Weber found that the low readers in her study did attempt to use more graphic information as the year progressed. However, they were less successful than were high achievers in their attempts to use graphic information, and as they focused more on graphic information their ability to use successfully grammatical information diminished. Goodman found the performance of the low readers in her study inferior to the performance of the high readers on both the categories of graphic proximity and syntactic and semantic acceptability.

Influence of Instruction on Development of Reading Strategies: While Clay, Biemiller, Weber and Goodman conducted their studies in natural settings, they did not

carefully document the instruction the children were receiving nor did they, in their interpretations, focus on the relationship of this instruction to the strategies observed. Goodman, Weber and Biemiller reported that their children were following a basal reading program. Clay reported that her children were taught by a method "which stressed fluency, meaning and 'learning as one reads' with only slight attention to letter-sound associations and learning a basic sight vocabulary" (1966, p.12). Yet, studies by Barr (1972, 1975) have shown that instructional method plays a significant role in the development of word identification strategies in the first year of reading instruction.

Barr (1975) extended the work of an initial short-term study conducted in 1972 from which she had concluded that "instruction influences how children translate print to speech" (1975, p. 56). Thirty-two first graders were divided into two groups: half were instructed by a phonics method, half were instructed by a sight word method. The instruction was conducted by the classroom teachers and children's errors on isolated word lists were obtained in December and May. Barr concluded that "translation strategies are influenced significantly by the class instruction... most children who initially formed a strategy different from the class instructional emphasis changed their strategy to accord with the class method and/or materials by the end of first grade" (1975, p.57).

While Barr's studies suggested that instructional method may influence word identification strategies developed by the beginning reader, it must be kept in mind that Barr's conclusions are based on analyses of responses to isolated word lists. Further, she did not systematically document the teachers' implementations of the two methods.

Snow(1974) and Dunkin and Biddle(1972), in evaluating studies of the effects of teaching and instructional programs, concluded that it is not sufficient to describe the instructional program. Careful documentation of the teaching situation is necessary. A study by Chall and Feldman(1966) of teachers' implementations of reading programs supports this claim. They found that "the observed practices are not related to those the teachers themselves report"(p.574).

Two studies of beginning readers have included careful documentation of the instructional program (MacKinnon, 1959; Lopardo, 1977). MacKinnon(1959) conducted a study in infant classes in Scotland in which he compared the achievement and reading behaviours of children taught individually or in groups by an experimental sentence method with the achievement and reading behaviours of their classmates. The study was a follow-up to a study in which he found that children taught in classrooms which placed a heavy emphasis on the acquisition of phonic knowledge lacked flexibility and independence in their reading strategies. "When they[children in these classes] failed to apprehend a word

in their attempts 'to sound it out', they seemed to be most confused as to what they were to do next" (p.89). In working with the experimental sentence materials, children were encouraged to help each other if they were in the group-learning condition, and to rely on as many clues as possible to figure out words. Children who had been exposed to the experimental materials made higher achievement scores than did their classmates and showed greater flexibility in word identification. They decoded new words "through judicious guesses which were made in the context of pictorial, semantic, syntactic and phonemic clues" (p. 232).

Lopardo (1977) conducted a longitudinal study in which she taught three kindergarten children to read using three different reading methods: phonic, whole word, a combination approach. Her study supported the findings of Barr: instructional method influenced the word identification strategies developed. She also noted that the material used in instruction could be an influencing variable in the development of word identification strategies. "Thus, while support was found for the influence of method of instruction on children's strategies for word identification, the material of instruction seemed to be an influencing condition." (p. 231).

Studies of Proficient and Less Proficient Readers

In an attempt to determine reading strategy differences between good and poor readers, Goodman (1973) and his associates have conducted descriptive cross-grade studies of

oral reading errors of children of varying proficiency levels. These studies were conducted within the framework of his theoretical model of the reading process. "The model assumes that reading is not a precise process of letter or word recognition but is in fact a process in which prediction, selection and sampling of cues, and subsequent testing by syntactic and semantic screens occur In this process, the reader draws on his preexisting linguistic competence and brings his experiential and conceptual development to bear on the task.... [thus] reading involves strategies more than skills" (Goodman and Burke, 1973, pp. 1-2)

Goodman has devised a taxonomy for analysing oral reading errors or miscues. He claims that an analysis of the patterns of an oral reader's miscues, based on this taxonomy, provides insights into the strategies a reader is using or misusing in the reading process. In this system each oral reading error is coded separately in nineteen categories. These categories reflect Goodman's view that readers use three kinds of information in the reading process: 1) graphophonic information, that is letter-sound relationships and recurrent spelling patterns, 2) syntactic information, that is, the patterning of words in the language, and 3) semantic information, that is, experiential

and conceptual knowledge. '*

Goodman and Burke(1973) and Rousch and Cambourne(1978) used Goodman's Taxonomy in studies of the oral reading behaviors of low, average, and proficient readers at each of grades two, four, six and eight. Subjects read passages which teachers had identified as appropriate to their reading level. The oral reading miscues were analysed using the Goodman Taxonomy.

Fluctuations in reading behaviour within groups, across groups within grade levels and across grade levels are evident in both studies, particularly the Goodman and Burke study. '* These fluctuations led Goodman and Burke to caution readers when drawing comparisons across groups. They concluded that development of reading proficiency is uneven and is definitely not linear.

The researchers in both studies reached the following conclusions: 1) readers at all grade levels and all levels of proficiency make use of all three cue systems,

 '* Goodman in his early works(1965) identified a fourth category of information which he has never incorporated in his taxonomy. He called this category "cues external to language and the reader". It included pictures, reading attack skills and learning strategies which the reader has acquired or been taught.

'* Fluctuations may be due to differences in passages on factors not measured by readability formulae, such as familiarity of topic or cohesiveness of the text. Further, greater fluctuations in the Goodman and Burke study may be due to the fact that both narrative and expository passages were used in the Goodman and Burke studies, whereas only narrative passages were used in the Rousch and Cambourne study. A further possibility is that perhaps all readers within the same proficiency level do not use the same strategies.

graphophonic, syntactic and semantic. 2) use of graphophonic information is not a reliable index of proficiency. Low and average groups perform equally well or better than high groups in producing errors which are highly graphically similar. 3) the category which most clearly differentiates high readers and low readers is the category of semantic acceptability. In both studies, at all grade levels, high and average readers were clearly superior to low readers in percentages of errors categorized as semantically acceptable.

Goodman and Burke had further predicted that correction behavior would differentiate proficient and less proficient readers. Their results did not support this prediction. They had hypothesized that correction behavior in high proficient readers would be cued by semantic information. In other words high proficient readers would correct errors which distorted meaning and would not correct errors which did not distort meaning. While readers at all levels tended to correct errors which distorted meaning more often than errors which did not distort meaning, these readers did correct errors which were semantically acceptable. This finding led Goodman and Burke to conclude that readers sometimes correct on the basis of graphic information rather than on syntactic and/or semantic information. Further, readers at all levels and proficiency groups left the majority of errors, approximately 70 percent, uncorrected.

Rousch and Cambourne's results confirmed Goodman and Burke's findings on percentages of errors corrected. In fact, they found that correction rate and age were inversely related. Older readers were less concerned with errorless production than younger readers. Grade two students at all proficiency levels were the most concerned with errorless production. Unlike Goodman and Burke, however, they did find differences in the correction behaviour of the high and low readers with respect to correction of semantically unacceptable errors. "Proficient readers at every Year level (2-8) are more likely to correct miscues that are judged to be totally unacceptable than those which are already fully acceptable Low ability readers are more likely to correct an already acceptable miscue than one which causes a more serious loss of meaning" (Rousch and Cambourne, 1978, pp. 79-80). King (1978), in a study which compared the oral reading behaviours of low grade six readers and average grade four readers, reached a similar conclusion. Good readers made "significantly more corrections than the poor readers, particularly on errors which were not acceptable with the passage meaning" (p. ii).

The studies of children's reading strategies reviewed in this section were conducted within a psycholinguistic theoretical framework. Thus, the analysis systems which the researchers used and the findings of the studies reflected the emphasis of a psycholinguistic view of reading, the use of language knowledge in the reading process. Recent work in

the area of discourse comprehension by researchers in cognitive psychology and artificial intelligence has provided new insights into the reading process. This literature provided additional clues as to what this researcher might look for in studying reading strategies and as to what techniques other than observation of oral reading and analysis of oral reading errors the researcher might use in studying the reading strategies of the adults in this study.

C. Studies of Discourse Comprehension

In the 1970's many researchers in cognitive psychology and artificial intelligence focused on knowledge: how knowledge systems are structured in the human mind, how they develop and how they are used in understanding and behaviour. From this body of literature, particularly the literature on how knowledge systems are used in understanding prose, new insights into the nature of the reading process have emerged.

Reder(1980) noted that researchers in the area of discourse comprehension tend "to partition the problem of prose understanding into subproblems and only focus on one or two aspects.... Investigators ["must be] aware of all aspects of the problem"(p.7). While researchers and theoreticians in this area tend to follow narrow avenues of exploration and often disagree on how best to represent discourse comprehension, they do agree on two points. First,

it involves an interaction between a reader's prior knowledge and textual information. Second, inference is a key process in this interaction. Selected literature on the roles of textual information, prior knowledge and inference in the reading process are reviewed below.

Many of the experimental studies reviewed required subjects to recall spontaneously passages presented visually or auditorily. Hypotheses regarding the subjects' processing, storage and retrieval of the information in the passages were made by comparing the recalls against representations of the text. The reader of this review should keep in mind three criticisms of this technique. First, comprehension and memory are not clearly differentiated (Paris and Lindauer, 1977). Second, the tasks are artificial and results may be influenced by the subjects' perceptions of the tasks. Subjects often perceive the tasks as 'one-shot' learning experiences, "take in the information, hold it for some period of time, give it back to the experimenter in as close to the original form as possible, and then forget it forever" (Spiro, 1975, p.11). Thus the experimental situations are representative of "comprehension of the text per se" but not representative of "comprehension to update one's knowledge" (Spiro, 1977, p.163) Third, findings which support the predictions of the text representation system are "support for the grammar [text representation] as a descriptive tool. It is not evidence for it as a processing model" (Reder, 1980, p.32).

Influence of Text Organization

Meyer(1977) had university students listen to short expository passages. Through analysis of their answers to questions and analysis of their written recalls she concluded: 1) the structure, rather than the content of a passage, influences what is remembered from the passage; 2) certain top level structures, that is organizational patterns, are better remembered than others; 3) top level ideas(main ideas) are better remembered than are low level ideas(details); and 4) remembrance of low level ideas(details) is idiosyncratic except for dates and familiar names which are easily recalled by all readers regardless of their place in the text structure.

Meyer(1977) conducted one study with sixth grade students. While she found significant differences across ability levels in amount recalled (high ability children recalled more information than did average or low ability children and average ability children recalled more information than did low ability children), she also found that in all ability groups top level structures (main ideas) were better remembered than were low level structures (details).

The early studies of Kintsch and his colleagues (Kintsch, Kozminsky, Streby, McKoon and Keenan, 1975, McKoon, 1977), conducted with university students to validate Kintsch's text representational system, supported Meyer's conclusion that text structure influences recall, in

particular, that top level structures are better remembered than are low level structures. However, as a result of insights gained from working with subjects' recalls, Kintsch and his colleagues (Kintsch, 1977; van Dijk, 1977) more recently emphasized the role of prior knowledge and inference as well as textual cues in discourse comprehension. They thus expanded the representational system to allow for summarization of ideas through inference and began experimenting with the influence of one type of prior knowledge on recall, "story schema".

Role of Prior Knowledge

Four kinds of prior knowledge used by readers in the comprehension of discourse can be identified in the literature: 1) structural knowledge, that is, knowledge of the organizational patterns of various types of discourse (Adams and Collins, 1979; Kintsch, 1977; Mandler and Johnson, 1977; Rumelhart and Ortony, 1977; Stein and Glenn, 1979; Thorndyke, 1977; van Dijk, 1977); 2) thematic knowledge, that is, knowledge of the topic or content of the passage (Adams and Collins, 1979; Brown, Smiley, Day, Townsend and Lawton, 1977; Stein and Glenn, 1979); 3) script knowledge, that is, knowledge shared by the members of a culture regarding everyday concepts and situations ('scripts', Schank and Abelson, 1977; 'frames', Winograd, 1977 and van Dijk, 1977); and 4) pragmatic knowledge, that is, knowledge of the communicative context (Frederiksen, 1977; van Dijk, 1977).

Studies of the influence of prior knowledge on memory for discourse have focused on structural knowledge, thematic knowledge, and script knowledge.

Structural Knowledge: Several researchers (Rumelhart, 1975; Rumelhart and Ortony, 1977; Thorndyke, 1977; Mandler and Johnson, 1977; Stein and Glenn, 1978; van Dijk, 1977) have theorized the existence of global structures or "organizational frameworks" (Thorndyke, 1977) which characterize different types of prose such as narratives, advertisements and propaganda. Van Dijk refers to these structures as "super-structures". These researchers further hypothesize that readers have "schemata", that is knowledge representations, for these various discourse types and that readers use these schemata "to guide comprehension during encoding and as a retrieval mechanism during recall" (Mandler and Johnson, 1977, p.111). Based on these schemata readers "expect certain patterns of information, attend to informational sequences that match these patterns, and organize incoming information into similar patterns" (Stein and Glenn, 1978, p.115).

The research to validate the above claims has been conducted with the narrative superstructure. In 1975, Rumelhart published the system which he had developed to represent the organizational structures of simple stories. Rumelhart's story grammar strongly influenced the work of Thorndyke, Mandler and Johnson and Stein and Glenn. Thorndyke (1977) conducted studies with adults and Mandler

and Johnson(1977) and Stein and Glenn(1979) conducted studies with children, using this framework.

Stein and Glenn(1979) conducted two studies with children in grades one and five, in which the children's recalls of stories read to them were matched against a parsing of the stories according to the categories of Stein and Glenn's story grammar. In their grammar "a story consists of a setting plus an episode system"(p.59).

Stein and Glenn, unlike most other researchers working in discourse comprehension (Meyer, Kintsch, Thorndyke, Rumelhart, Mandler and Johnson), did not construct the stories for their experiments. Rather, they used available children's fables such as "The Fox and the Bear". In the first study children in grades one and five listened to stories read to them. They were asked to recall the stories. For both first graders and fifth graders, major settings, initiating events and direct consequence statements were the most frequently recalled categories. Mandler and Johnson(1977) obtained similar results in a study with first and fourth graders in which they used a "story schema" which is similar to Stein and Glenn's grammar.

In studies by both Stein and Glenn and Mandler and Johnson, there were some significant differences between the recalls of the older children and those of the younger children. Older children recalled more of the content of the stories; in particular they recalled more internal responses of characters within episodes. In the Stein and Glenn study

the older children also included more inferences in their recalls. This finding was not replicated in the Mandler and Johnson study. Mandler and Johnson wrote their stories to fit the grammar; their stories may have been more explicit than were the "natural" stories used by Stein and Glenn.

Results of the above studies and others (Kintsch, 1977; Freedle, 1979) suggest that children have a well developed sense of story, a well developed "story schema", by the time they enter school. Some evidence suggests, however, that they do not have a schema for expository prose. Piaget's work (1959) with seven- and eight-year-old children indicated that they had more difficulty retelling explanations than retelling narratives. Furniss (1978) in a study with sixth grade students found that similar content was better remembered when it was embedded in a narrative structure than when it was embedded in a descriptive-informational structure. In a pilot study, Freedle (1979) found no difference between fourth graders recall of similar content embedded in narrative and expository structures. This result led him to hypothesize that fourth grade children have developed a schema for expository material through exposure to such material in school. First graders in the Freedle study, however, often used a narrative schema to organize the expository material for recall. Tierney, Bridge and Cera (1978), in a study of children's inferencing behaviour, noted that some of the third graders in their study seemed to select information for recall from expository passages on

the basis of a story schema.

Thematic Knowledge: Kintsch et al(1975) and Thorndyke(1977) conducted studies with university students to determine the influence of structural aspects on comprehension and recall of text. Their results suggested that content as well as structure plays a role in memory for discourse. They noted that students read passages which contained familiar, historical content more quickly than passages which contained science content, even though the passages were structurally similar. Thorndyke, in his studies of story grammar, also noted that students recalled better the passage which contained the more familiar content.

Two research studies which focused directly on the role of thematic knowledge in discourse comprehension are reviewed, those by Sulin and Dooling(1974) and Brown, Smiley, Day, Townsend and Lawton(1977). Sulin and Dooling(1974) conducted studies with university students. The students read short biographical passages which they were led to believe were about famous people, e.g. Adolf Hitler, or fictitious people, e.g. Gerald Martin. In a subsequent recognition task subjects who had been led to believe that the passages were about famous people made more thematic intrusion errors. That is, they identified new sentences, consistent with their prior knowledge of the person, as having been contained in the original passage.

Brown et al. (1977) conducted a study with children in grades two, four and six. Children in the experimental conditions took part in sessions in which they were presented with one of two sets of background knowledge about a fictitious tribe, the Targa. One week later the children listened to a story about a member of the Targa tribe, "Tor of the Targa". They then recalled the story in their own words and, following the recall, answered probe questions on the story. As in the recall studies of Mandler and Johnson (1977), Stein and Glenn (1979), and Freedle (1979), older children recalled significantly more of the text than did younger children. The recalls of subjects of all ages included intrusions which were consistent with the prior orientation which they had received. The number of these relevant intrusions increased with age. Brown et al. concluded that like adults, children use prior knowledge to disambiguate situations, to fill gaps, to incorporate the unfamiliar to the familiar and to provide a plausible interpretation for the ambiguous or vague. Thus, a reader's personal history, knowledge and belief systems will influence the interpretation that is given to a passage" (1977, p. 1454).

Script Knowledge: Schank and Abelson (1977) theorized the concept of two classes of knowledge which people use in understanding connected text: general knowledge (plans, goals, themes) and specific knowledge (scripts). These theoretical notions grew out of their attempts to program

computers to understand natural language. Scripts are the best defined of these notions. "We feel we really understand scripts, are pretty sure about plans, somewhat less certain about goals, fuzzy about themes and completely uncertain what lies beyond that" (1977, pii). Scripts represent the knowledge which people possess about events and situations which they have experienced many times. Communicators, speakers and writers, often omit details of everyday situations and assume that these details will be inferred by the listener or reader. Script knowledge enables a reader to make these inferences. There are many scripts which are shared by the members of a culture, e.g. eating at a restaurant, visiting a doctor.

Schank and Abelson (1977) and their students have programmed computers to understand script-based situational passages by including script knowledge in the programs. They regard these computer simulations as support for their theory of scripts.

More recently, studies conducted with human subjects by Bower, Black and Turner (1979) have provided additional support for this theory. Bower et al. asked university students to write lists of actions associated with everyday events, such as visiting a doctor or eating at a restaurant. In follow-up experiments students chunked lists of actions for everyday events. Bower et al. found much agreement among students as to the actions of everyday events, and found the students also agreed upon how to segment the events. They

concluded that these results provided support for Schank and Abelson's script theory.

In a second series of studies, Bower et al.(1979) created script passages and manipulated them in various ways to assess the influence of script knowledge on recall of text. They found that students "confused what was said with what the script strongly implied"(p.212). These results are consistent with Schank and Abelson's theory which suggests that elements of scripts will be automatically inferred once the script has been "instantiated" by the mention of key elements of the script or "headers".

Inference

The interaction between a reader and a text is dependent upon the process of inference. "The meaning of a text is more than the sum of the individual sentences that comprise it. People, in speaking and writing, consistently leave out information that they feel can be easily inferred by the listener or reader"(Schank and Abelson, 1977, p.22) and in fact, which they intend the listener or reader to supply. Inferences which listeners and readers make to supply such missing information are referred to in the literature as "backward looking inferences"(Schank, 1975), "authorized inferences"(Clark, 1977) and "necessary inferences" (Reder, 1980). Inferences made to connect logically explicit text information, or to fill in details intentionally omitted by a writer, such as elements of scripts, are examples of necessary inferences. Necessary

inferences are often made automatically in the reading process (Reder, 1980).

Reder (1980) identified a second class of inferences operational in the comprehension process, which she calls "elaborations". Elaborations are inferences made by a reader which are consistent with the text, but not necessarily true. "They can be embellishments of physical descriptions of characters' personalities, imputing goals or intentions to the author or... associations to concepts referenced in the story" (p.40). Reder argued that necessary inferences for a story would likely be similar across readers; whereas elaborations tend to be idiosyncratic, and dependent upon such factors as prior experience with related material, interest in the subject matter and general tendency to elaborate. She further hypothesized that readers use elaborations to "generate expectations about subsequent input [resulting in] large savings in comprehension time" (p.40).

Much of the work on inferences is in the theoretical stages. Many of the insights (Clark, 1977; Schank and Abelson, 1977) into the role of inference in the comprehension process have come from logical analyses of comprehension tasks rather than from work with human subjects. While conducting studies focussing on aspects of text other than inferences, researchers have noted inferences in the recalls of their subjects (Kintsch et al, 1977; Stein and Glenn, 1979). Stein and Glenn noted both

necessary inferences and elaborations, which they called "additions", in the recalls of their first and fifth grade subjects. Elaborations were particularly evident in the recalls of the fifth grade children and were generally inferences regarding characters' feelings, thoughts and goals. ¹³

Tierney, Bridge and Cera(1979) conducted a study of good readers and poor readers in the third grade. The children read an expository passage on dinosaurs from a commercial reading program. Their spontaneous and probed recalls were analysed and compared as to recall of explicit and inferred information. Inferences were categorized according to Frederiksen's Taxonomy of Text-Based Inferences which included twenty-six types of inferences organized into eight classes.

Tierney et al. found both qualitative and quantitative differences between the good and poor readers. While both good and poor readers recalled both explicit and inferred information, good readers recalled significantly more explicit information as well as more inferred information. McLeod(1978) obtained similar results in a study of inferencing in very proficient (high vocabulary and high comprehension) and proficient (high vocabulary and average comprehension) fourth grade readers. The better readers made more inferences than did the less proficient readers.

¹³ Experimental situations would seem to dictate against detection of elaborative processing according to Spiro(1975, 1977) and Tierney, Bridge and Cera(1977).

Further, in the Tierney et al. study, while both groups made inferences, there were qualitative differences in the types of inferences they made. "Good readers generated more causal and conditional connections between propositions ['which seemed to add to the organization and cohesiveness of their recalls'], while poor readers tended to substitute more general concepts for the specific terms used in the passage ['which seemed to result in a loss of accuracy and specificity']" (p.564).

Tierney et al. concluded their article with a discussion of the limitations of recall analysis techniques and with a caution for researchers. While acknowledging that "valuable insights can be derived from research based upon a discourse analysis model... [such research] does not afford an examination of every text characteristic across every text across every reading situation (p. 567).

Researchers would do well not to be too text analysis bound. That is, researchers should remain cognizant of the pragmatics of discourse comprehension, the predispositions of readers, and those aspects of text eluding definition. (Tierney et al, 1979, p.567)

III. THE STUDY

The initial review of the literature led to the development of the following exploratory questions. The major focus of the study was question one.

1. What reading strategies do adults participating in a beginning literacy program use?

a) Do these strategies change during the program?

b) Is there a relationship between change or lack of change in reading strategies and the instructional program?

c) Is there a relationship between change or lack of change in the reading strategies of these adults and factors outside of the instructional program?

2. What are the perceptions of reading and learning to read of adults enrolled in a beginning literacy program?

3. Why do adults enroll in beginning literacy programs?

The research strategy chosen to explore the above questions was a field-based comparative case study approach. The study was conducted from the end of January to mid-May, 1979, in a beginning literacy classroom in an adult training centre in a major city in western Canada. The data collection centred around four students in the classroom and the literacy instruction which they were receiving. The researcher spent at least three days per week, Monday, Wednesday and Friday (with the exception of a two week period in April when the students participated in a work experience program), in the classroom during the first two months of the study. During one week in February and during

the last month of the study the researcher spent five days per week in the classroom collecting data and observing.

The remainder of this chapter is divided into three sections. The first section describes the principles followed in working in the research setting. The second section describes the procedures used to obtain data relevant to the exploratory questions. The final section describes the procedures followed in interpreting the data and addresses the issues of the validity and generalizability of the interpretations.

A. Working in the Field

Bogdan(1972), in a short how-to book outlined guidelines for performing participant observation in formalized settings such as school classrooms. Although this study is too structured and focused to be considered a participant observation study, as the term is typically used in the literature, the principles outlined by Bogdan for conducting research in the 'milieu' of the subjects are applicable. My behaviour in gaining entry to the field and subsequent behaviour in the field reflect these principles.

Pre-Field Work Stage

Bogdan defines all those activities which take place prior to taking up intense observation in the field as the

This section of the dissertation departs from the formal style used in the other sections since a personal style seemed most appropriate for communicating the principles followed in the field setting.

pre-field work stage.

Entry into the Field: In November of 1978, my advisor and I approached the director of academic upgrading programs of an adult training institute, NBCC, regarding the possibility of conducting an in-depth study of selected adults learning to read in the beginning literacy classroom in the institution. We outlined the proposed study and explained that while the study would focus on the selected students, I would also need to be able to observe and carefully document the instructional program. This documentation of the program would involve long term observation in the classroom. The director was receptive to the idea and promised to discuss the project with the three teachers of the program indicating that ultimately the decision to participate would be theirs. One week later I met with the teachers and explained my study to them. The fact that the study focused on the students, not the teachers, seemed to be the key that opened the door. Also, one of the teachers had just finished participating in a curriculum development project and was enthusiastic about participating in a research study. I suspect she strongly influenced the decision of the group to participate since the other two teachers were much more guarded in their enthusiasm for the project. Shortly after this meeting, this teacher was transferred to another department within the institution: she never participated in the study which she had so strongly endorsed.

At the first meeting the teachers subtly assessed my sensitivity to adult illiterates. Recently, an administrator had granted permission to a local television station to do filming in the classroom for a public awareness program on illiteracy. The experience was upsetting to many of the students who often go to great extremes to hide their illiteracy from the public. They were assured that no videotaping or audiotaping of classroom lessons would occur. Only field notes and checklists would be used to document the instructional setting.

In this first meeting with the teachers I clearly established the role which I wished to play in the instructional setting, that of a passive observer. I explained that because I wished to document the program as it existed I had to be careful not to influence their professional behaviour in any way. I could thus offer no professional assistance to them, either within the classroom or outside of the classroom during the study; I could not share any findings about the students or the program during the study; nor could I show them the observation systems I intended to use. I did agree to discuss my observations with them at the end of the study. In short, I asked them to take a stranger into their classroom for three months, a stranger who would be of no assistance to the program, and in return they would get a copy of the report of that stranger's observations and perhaps the satisfaction of knowing that they had contributed to the advancement of knowledge.

The teachers' behaviour during the study indicated that they had understood the importance of the maintenance of my passive role in the classroom. On days when one of them was unexpectedly absent, they often remarked to me, as they scrambled to reorganize their day, that of course I could not take on a group because that would interfere with the study. They seemed to be trying to reassure me that it was all right that I was not helping out in these mini crises. On one occasion a situation arose which I deemed more important than this research principle and I did teach a group for half an hour. I was careful, however, to model the normal group procedures.

This first meeting closed with an agreement that in early December I would spend some time in the classroom piloting some techniques and becoming familiar with the program. The intensive observations would begin at the start of the new term at the end of January.

Initial Classroom Visits: In early December I spent three mornings in the classroom. During these visits I piloted with five of the students the structured interview which I had developed to assess a reader's concepts of reading and learning to read. I also took notes on the instructional program and borrowed samples of instructional materials. In early January I returned on two occasions to observe the program in order to make final decisions regarding observational strategies for documenting the instructional program.

The Field Work Stage

I arrived with the students, both continuing and new, for the beginning of second term on Wednesday, January 31, 1979. The teachers and directors had advised me that it would be a waste of my time to come during the first five days as little teaching would occur and I would not be able to work with students because they would be involved in a testing and orientation program. However, this orientation period proved most valuable. It allowed me to "come on slow" (as Bogdan suggests), to ease into the situation gradually. During this period I assisted teachers and students with testing procedures. When at the end of the first week I began observing instructional periods and I approached students regarding participation in the study I was already quickly becoming an accepted part of the setting.

Selection of Subjects

I had identified three criteria for selection of subjects.

1. The subjects must be enrolling in the program for the first time.
2. The subjects must possess minimal reading skill, that is, functioning at a level of approximately the average child entering grade one.
3. The student's first language must be English. To allow for drop outs, a problem in ABE programs, six subjects would be selected initially.

Eight few students entered the program. Of these eight only two matched the criteria of minimal reading skill. Of these two only one had English as a first language. The achievement scores of the remaining six students on the Gates MacGinitie comprehension test, administered by the institution during the orientation period, ranged from a grade-level equivalent of 3-2 to a grade-level equivalent of 6-6. Three students had scores of 3-6, and three students had scores of 3-2, 6-0 and 6-6.

Upon consultation with my advisor I revised my plans and decided to approach the one beginning reader who fit my original criteria, the four students with the next lowest scores on the Gates MacGinitie comprehension test (including Bob, Lisa and Karen) and a beginning reader (Mary) who had participated in the program during the first term. On the third day of the study the new beginning reader terminated the program because of domestic problems. I approached the remaining five selected subjects and they all agreed to participate in the study. Within three weeks one of the five subjects terminated the program. Three of the remaining four subjects, Lisa, Mary, and Karen stayed in the program for the duration of the study and the fourth subject, Bob, terminated the program two weeks before the completion of the study.

A Day in the Field

At 8:00 A.M. I arrive at the institution and I go to the staff lounge for coffee. At 8:20 I go to the classroom,

set up my tape recorder and chat with students as they arrive for class. At 8:30 the teachers arrive in the classroom and class begins. The first hour is an individualized instruction period. Students work at their own pace on word identification, spelling and writing skills. During this period I conduct short interviews with subjects, conduct a reading strategy session with a subject if one is scheduled for that day and observe teachers and the teacher aide working with the students. At 9:30 we break for coffee. I usually go to the staff lounge for coffee with the teachers. Occasionally one or two of the subjects invite me to go to coffee with them. From 10:00 to 11:00 I observe either a group phonics lesson or a group reading lesson. Lunch break is from 11:00 to 12:30. I spend part of the lunch period in the staff lounge. I usually spend the last fifteen minutes of the break in the classroom chatting with students. On Wednesdays from 12:30 to 1:30 I observe a second individualized period and on Fridays during this period I participate in a Sustained Silent Reading period. From 1:30 to 2:30, while the students participate in a personal development course I remain in the empty classroom updating observational notes and transcribing tapes. At 2:30 the students dismiss for the day. I often have coffee with the teachers at this time. I then work on transcriptions and categorizing materials until I go home at 4:00.

Establishing a Working Relationship

The researcher working in the field "is a mixture of an objective recording machine and an empathetic human being" (Bogdan, 1972, p.21). I wished to be a neutral part of the classroom so that I might observe the instructional program without influencing it. At the same time I wanted students and teachers to feel comfortable with me in the classroom. Establishing this role for myself without appearing to be cold or indifferent was a perceived challenge of the early stages of the research.

Becoming an established, neutral part of the classroom was, however, surprisingly easy. Students could choose their own work area in the classroom and they readily accepted my joining them. They did not solicit my help but seemed to sense that I had my work to do and outwardly treated me as another worker at the table. They often expressed amazement at how much and how quickly I wrote. They were naive participants in a research study and through conversations with many of them it was apparent that they had only a vague understanding of what I was trying to do.

As mentioned earlier, the teachers actively helped to establish my neutral role in the classroom. They did not try to impose a volunteer aide role upon me. Gradually, they too came to feel comfortable with my presence in the classroom.

Two factors, I feel, contributed to my acceptance by the teachers in the classroom. First, I operated in the classroom at their convenience, not mine, and thus I was not

a nuisance in the classroom. I did not disrupt classroom routines nor did I request changes in classroom routines to accommodate my research needs. This policy at times interfered with scheduled reading strategy sessions with subjects, but I made the decision that maintaining the acceptance and rapport was more important than was maintaining a testing schedule. Second, the decision to spend the entire day in the institution, even when I was not observing in the classroom, was a wise choice. My presence in the building afforded many opportunities for informal conversations with the teachers. From these conversations we developed a mutual respect and trust for each other.

This development of professional respect for the teachers enabled me to distance myself professionally from the content of the program which I was observing. Bogdan has cautioned that it is difficult for researchers to remain detached observers when they study an area in which they have much professional knowledge. While I disagreed professionally with many elements of the program, I did not find it difficult to remain detached, for I truly came to respect the teachers as dedicated people who cared for their students.

While I will never know to what extent rapport and acceptance were truly established, and to what extent it was tolerance of and sympathy for a graduate student trying to do her research, there were several indicators that a desirable level of acceptance had been achieved. Bogdan

notes that invitations to social activities of the group is often one sign of acceptance. The teachers and students always ensured that I was invited to special class events, even when these events did not occur on a scheduled observation day. These invitations continued after I had completed the observation period in the classroom.

Rapport was almost instant with three of the four subjects who formed the final sample of the study, Bob, Lisa and Karen. I never cease to be amazed at how readily adult illiterates open their lives and thoughts to me, often during a first interview. The youngest subject, Karen, was much more reticent. As a friendship developed between Lisa and her, our rapport also strengthened.

The subjects enjoyed their sessions with me and, interestingly, all of them felt that I had helped them, despite the fact that I offered them no assistance with their reading. Being a sympathetic listener seemed to be sufficient. In this sense perhaps I contributed to their enthusiasm for the program, and in doing so contributed to a Hawthorne effect. However, three of the four students, Lisa, Mary and Karen, continued in the program the following year, an indication of a high level of personal motivation. Again, the signs of acceptance, invitations to social situations occurred. Subjects invited me to coffee, more frequently as the study progressed; two of the subjects arranged for me to meet members of their families; and I received an offer for horseback riding lessons. As well at the end of the study

two of the subjects, Lisa and Karen gave farewell presents to one they viewed as a friend.

B. Collection of Data

Triangulation of methodologies is a research strategy in which a combination of complementary research techniques is used to study the same dimension of a phenomenon. A combination of qualitative and quantitative techniques, chosen to complement the strengths and weaknesses of each of the techniques used, is desirable (Webb, 1966). A triangulation strategy allows the researcher to cross-validate results, giving the researcher greater confidence in the interpretations of the results (Webb, 1966; Denzin, 1978; Jick, 1979).

Similar results obtained from complementary techniques allow the researcher to "effectively strip of plausibility rival explanations" (Webb, 1966, p.174). When the results of the complementary techniques do not converge, the researcher is forced to search for more complex explanations of the phenomenon. Thus "triangulation may be used not only to examine the same phenomenon from multiple perspectives but also to enrich our understanding by allowing for new or deeper dimensions to emerge" (Jick, 1979, pp.603-604).

In this study a partial form of triangulation was used to obtain data relevant to the three exploratory questions. Jick (1979) noted that in practice most researchers do not truly triangulate the data. In other words they do not give

equal weighting to each of the techniques used in their interpretations. Such is the case in this study. For this reason the term partial form is used to describe the application of triangulation in this study.

Categorization of data obtained in structured reading strategy sessions was the major technique used to make inferences about the subjects' reading strategies. Observations, subjects' verbal self-reports and subjects' responses to retrospective questions were used to cross-validate results of the categorization systems. New insights also emerged from these complementary techniques, enriching the understanding of the phenomenon.

Categorization systems and running records were used to document the content of the instructional program. Subject self-reports and responses to direct questions provided a different perspective on the program and the subjects' perceptions of the program. Structured interviews and subject self-reports provided data on the subjects' concepts of reading and learning to read and their reasons for entering the program.

Reading Strategy Sessions

The reading process cannot be directly observed. Strang(1970) has suggested numerous techniques for gaining insights into children's reading strategies: daily observation in reading situations; questioning regarding children's concepts of reading and how they figure out words; analysis of errors made on both standardized and

informal tests; and interviews using introspective and retrospective techniques. These techniques were used in the present study to obtain data on the subjects' reading strategies.

On five occasions during the study, at intervals of approximately three weeks, each subject participated in a structured session, designed to obtain data on his or her reading strategies. Since the data from these sessions would be used to draw comparisons across time, the format of these sessions remained constant throughout the study. These sessions always took place in a small room located within the classroom area. The entire sessions were tape recorded.

The three subjects who had scored at a mid grade-three level on the initial screening instruments, administered by the institution read at least four passages during each of these sessions: two narrative passages, one read orally and one read silently; and two informational passages, one read orally and one read silently. The Fry Readability Formula was used to choose the passages: Silent reading passages always had the same readability level or a lower readability level than did the passages used for oral reading within the same strategy session. Prior to reading the passages, subjects were told that they would be asked to tell what the passage was about when they had finished. The narrative passages were chosen from Real Life Stories, Books A and 1, and the informational passages were chosen from New Practice Readers, Books C and D. Sample passages are included in

Appendix A, The beginning reader in the study, Mary, read passages orally and silently from supplementary materials (readers and tests) to the basal reading program which she was following (Ginn Basic Readers). She also read passages orally and silently from an adult beginning literacy program, the Laubach Streamlined English program. All materials were new to the students.

Analyses of the subjects' performances on the oral reading tasks, their responses to probe retrospective questions, and their verbal self reports during these sessions were used to infer the subjects' use of graphic and contextual information in the reading process and also to infer their strategies for identifying words which they could not immediately identify on sight. * Analyses of the subjects' oral recalls of the passages read silently, combined with subjects' responses to probe retrospective questions and their verbal self reports, were used to assess the subjects' comprehension and to infer strategies used by the subjects in comprehending and recalling text.

Analysis of Data from Oral Reading Tasks

Two systems were used to analyse errors made by the subjects in their oral reading during the reading strategy sessions: 1) Oral Reading Error Analysis System and 2) Attempts on Words. Copies of the guidelines for coding these systems and copies of the coding sheets are included in

* Words which a subject cannot immediately identify on sight are referred to as unfamiliar words in the study.

Appendix B. A criterion of a word identification accuracy level of 92% was established for inclusion of the errors in the error analysis coding system for the three subjects at the mid-grade three level and for the beginning reader a criterion of 85% word identification accuracy was established. These criteria were established by Powell (1968) as the levels of word identification accuracy at which adequate comprehension is maintained by the reader. These criteria were generally followed; any deviations are noted in the text of the case studies.

The Oral Reading Error Analysis System was modelled on the Goodman Taxonomy of Miscues. This system, developed by the researcher for this study, is much shorter and includes three categories from the Goodman taxonomy, graphic information, semantic information (called contextual information), and correction behaviour. Semantic information and correction behaviour were the two categories identified in the literature as being most sensitive for detecting developmental changes and qualitative differences in readers. The criteria used to assess use of semantic information are more lenient than are the criteria used in the Goodman system. In the system used in this study, the category of contextual acceptability is used to assess the reader's use of semantic information. Unlike the Goodman system, errors which are not syntactically correct may be categorized as contextually appropriate. In actual practice, however, the majority of errors which were categorized as

contextually appropriate were also syntactically appropriate.

A complete description of the Oral Reading Error Analysis system is contained in Appendix B. The system categorizes each error as an omission, a substitution or an insertion. The error is then further categorized according to graphic proximity to the stimulus word, high, medium, low or none; to contextual acceptability, acceptable within the total passage context(T), acceptable within the context of the sentence(S), partially contextually acceptable with the portion of the sentence prior to the error(P1) or following the error(P2), or not contextually appropriate(N); and to correction, successfully corrected(S), correction unsuccessfully attempted(U) or not corrected(N).

Y. Goodman and Burke(1972) in the Reading Miscue Inventory Manual caution the user that there are no formulae for interpreting results of miscue analyses. Rather the interpreter of the results must examine the "interrelationship of various patterns to gain insights into those reading strategies that the student is using and his degree of proficiency in using the strategies"(p.71). Because there is much room for the interpreter's discretion, detailed quantitative data are presented in this study so that the reader may judge the adequacy of the interpretations.

Goodman and Burke describe two patterns to be used in interpreting the results of their coding system: a

grammatical relationships pattern and a comprehension pattern. In the grammatical relationship pattern results of the three categories, grammatical acceptability, semantic acceptability and correction are compared to gain "insight into how concerned the reader is that his oral reading sounds like language"(p.71). In the comprehension pattern the categories of semantic acceptability, correction and degree of meaning change are compared to gain "insight into whether there has been meaning loss"(p.75). Goodman and Burke also suggest that the user calculate percentages for graphic similarity, but they do not provide guidelines for the use of these percentages. The present study used this concept of comparison of categories to establish patterns to interpret the results of the oral reading error analysis system.

For each subject the percentages of errors within each of the subcategories of the categories graphic, contextual and correction were first calculated. The errors for each reading strategy session and for each type of passage were coded and summarized separately so that comparisons could be drawn across passage type and across time. These results provided insights into the extent to which the subjects used graphic and contextual information when reading and a summary of the subjects' correction behaviour. A separate summary focusing on corrected errors and unsuccessful attempts to correct errors was then prepared for each subject. The results of this summary were used to gain

insights into the kind of information, graphic or semantic, which cued correction behaviour in the reader.

The results of the oral reading analysis system were used primarily to make inferences regarding the extent to which the reader relied on contextual information when reading. Results of the categories of contextual acceptability and correction behaviour were compared to gain insights into the readers' use of contextual information. Errors categorized as contextually acceptable and as partially contextually acceptable with the prior portion of the text (P1) were considered evidence of reliance on contextual information. A pattern of correction behaviour in which the reader corrected those errors which were not contextually appropriate or which were partially contextually appropriate and did not correct errors which were contextually appropriate was considered further evidence for support of a conclusion that the reader relied on meaning when reading. The higher the percentages of errors categorized in the desired categories, the stronger the support for the conclusion. The presence of all three aspects of a contextual pattern in a subjects' error pattern was considered strong evidence in favour of a conclusion that the reader used reliance on context as a reading strategy.

While the category of graphic proximity provided some evidence of the reader's use of the graphic information and was useful in reaching conclusions regarding the relative

extent to which the reader used graphic and contextual information, the category summaries did not provide specific information regarding the types of graphic information the reader used and further the category was not sensitive to some changes which occurred in the subjects' graphic analysis strategies during the study. More detailed analyses of errors such as the two techniques described below provided further information on the subjects' use of graphic information as well as other strategies used by the subjects to identify unfamiliar words.

In categorizing errors according to graphic similarity, graphic units in the stimulus word occurring in the error were circled. Analysis of these circled units provided insights into the size of graphic units processed and the position of these units within the stimulus words. This technique was also used to analyse the subjects' errors on the WRAT, a standardized isolated word list test, administered at the beginning and end of the study. A category system developed for analysing multiple attempts on words provided further insights into the graphic analysis strategies of the subjects as well as clues to other strategies used by the subjects to identify unfamiliar words.

The Attempts on Words system was developed by the researcher after the study when it became apparent that potentially valuable information available in subjects' multiple attempts on words was being ignored. (The decision

rule in the oral reading error analysis system is to categorize the first word produced). In the attempts on words system all of the subjects' attempts on a word are coded. A copy of the system is in Appendix B. The system sensitizes the user to the readers' strategies for processing the graphic information. In the case of the beginning reader overt evidence of using picture clues was also recorded in this system. Other strategies such as repetitions of prior portions of the text and reading beyond the stimulus word were also noted in this system. The researcher also recorded whether or not the attempts resulted in a successful production. As with the categorization of the oral reading errors, the attempts for each reading strategy session and for each type of passage were coded separately so that comparisons across type of passage and across time could be made. This system was valuable in this study in detecting changes in strategies across time.

As well as the coding systems described above, subjects' self-reports, that is, unsolicited statements about their reading strategies and subjects' responses to probe questions such as "How did you finally figure out that word?" provided further data on subjects' strategies for identifying unfamiliar words. In most instances these self-reports provided support for inferences drawn from the coding systems. In a few instances, however, they provided new insights into subjects' strategies and new directions

for observations.

Analysis of Recall Data

The comprehension process cannot be directly observed nor can it be clearly differentiated from memory. Memory is used during the comprehension process and memory is also a product of the process. Researchers have used analyses of oral and written recalls to gain insights into three interrelated facets of discourse comprehension: the processes used in comprehension, e.g. inference; the knowledge structures used in comprehension, e.g. background knowledge; and the strategies used by readers to remember and recall text information. Analysis of subjects' oral recalls of passages read silently was the major technique used to gain insights into the subjects' comprehension strategies.

The recall analyses systems typically used in discourse comprehension studies were inappropriate for the data of this study because the text representational systems used in such studies, both propositional systems and story grammars, require extensive amounts of time to apply to passages. Often the researchers write the passages to fit conveniently the systems and the application of the systems to natural passages can be a frustrating task. As well, the representational systems used in such studies are suited to one specific type of discourse, e.g. narrative or expository. Both narrative and informational passages were used in this study. Therefore the decision was made to use

Drum's global categories for protocol analysis(1977): text specific, text entailed, text elicited, text evoked and text external. This system was chosen because Drum(1977) reported a study in which she had used this system to analyse recalls and found that the system had been sensitive to qualitative differences in the reading strategies of good and poor ninth grade readers. These categories provide information on the extent to which subjects' recalls contain text information, inferences bounded by text information, inferences not bounded by text information, vague general responses and parenthetical remarks and repetitions (Drum and Lantaff, 1977, p.6). Drum and Lantaff applied these categories to recalls which had been segmented into propositions. For this study, the categories were applied to recalls which had been segmented into basic and alternate syntactic structure units (Fagan, 1978). A copy of the guideline for coding the recall data is contained in Appendix C.

The process of applying this system to the subjects' recalls proved to be more useful than was the product of the process, the summary profiles of category percentages. Thus the majority of insights regarding subjects' comprehension and comprehension strategies were gained from applying the coding system and from subjects' responses to retrospective questions, such as "I noticed you went back and looked over the first page again. What were you looking for?" rather than from the product of the application of the coding system. Familiarity with the discourse comprehension

literature cued these insights and also influenced the interpretations of the observed behaviour. Much primary data on comprehension strategies are thus presented so that the reader may judge the appropriateness of the interpretations.

Concepts of Reading and Learning to Read

In the first session with the subjects a structured interview was used to assess their concepts of reading and learning to read as well as their reasons for taking part in the program. The revised version of the interview (see Appendix D), based on the results of the pilot conducted during November, contained four major sections. In the first section, Conventions of English Orthography, subjects were asked to demonstrate their understanding of the concepts of letters, words, sentences, directionality of print and punctuation. This section was modelled on the SAND test by Marie Clay (1972) and the Pre-Schooler's Book Handling Knowledge test by Doake (1978). The second section, Segmentation of Oral Language, assesses the subjects' awareness of linguistic units such as words and phonemes. This section is an adaptation of techniques used in the Lindamood Auditory Conceptualization Test and in the study by MacGinitie and Holden (1972) described in chapter II. In the third section questions are asked to assess the subjects' concepts of reading and learning to read. The questions in the fourth section focus on the subjects' reasons for entering the program and their concepts of how other people in society use reading.

In practice the first two sections of the interview provided little valuable information. All of the subjects in the study were already reading and could do all of the tasks. Therefore only the questions of the last two sections with some necessary rewordings, were readministered at the end of the study.

Documentation of Instructional Program

The program was divided into four distinct instructional periods: 1) individualized periods; 2) group phonic classes; 3) group reading classes and 4) a silent reading period. Separate procedures were developed for documenting the content of the program for each of these periods. The focus of the documentation was always the reading content or reading-related content of the program.

Individualized periods were held during the first hour of every morning. During these periods students worked at their own pace on reading and writing skill worksheets. All worksheets completed by the subjects were categorized on an Individualized Instruction Record Sheet (see Appendix E). A system developed by Calfee (1976) for the California Beginning Teachers Evaluation Study provided a model for the development of this record system. The focus of the system, however, differs from Calfee's; therefore many of the categories differ as well. Each worksheet was coded according to these criteria: general type of activity, reading, writing or spelling; the specific skill or skills, e.g. "short 'a'"; the response that the task demanded of the

student, e.g. read, write; the unit of print to which the student responded, e.g. letters, sentences; the structure of the print, e.g. narrative, informational; and the audience for whom the material was developed, children or adults.

As well observations of teachers and teacher aides working with subjects in the study were recorded. As noted earlier, the setting enabled the researcher to move freely about the classroom and to work at tables with the students. Subjects could be observed at nearby tables and observations written directly into the field book. Additional observations were recorded during coffee break.

Two group phonic classes were conducted each week. At least one of these classes was observed every week. The subjects in the study were in three different phonics groups; each group was observed at least one out of every six classes. A system similar to the Individualized Instruction Record Sheet was used to code the materials used during all phonic classes held during the study whether or not the class was observed. Teachers provided this information. A copy of this system is in Appendix E. As well a running record of the observed classes was kept. This record focused on the statements made by the teacher, particularly those statements related to skill knowledge or reading strategies.

There were also two group reading classes every week. The beginning reader, Mary, was in the beginning group and the three remaining subjects, Lisa, Karen and Bob, were in

the middle reading group. At least one reading group period was observed each week. Again the observations alternated between the groups, with each group observed at least once out of every four classes. Teachers also kept the researcher informed of material covered in those classes not observed. A categorization system was not used for these classes. Prior to the observed class xeroxed copies of any material to be used were made. During the class a running commentary which focused on teacher reading-related statements was kept. These anecdotal notes were cross-coded with the material used during the class.

For the last two months of the study a free choice silent reading period was held on Friday afternoons. A log was kept of the materials read by the subjects during these periods.

At the conclusion of the study students were asked to comment on the program in order to obtain data on their perceptions of the program. Additional information on subjects' perceptions of the program was also obtained from subject verbal self-reports throughout the study.

Outside Reading Activities

At the beginning of each observation day, sometimes prior to class, subjects were asked to describe reading activities carried on outside of the classroom since the researcher's last visit, by themselves or with assistance. The format of these sessions was open ended. Some days subjects reported very little. On other days, particularly

when they were experiencing a "high" or a "low", they often talked spontaneously for long periods of time. These spontaneous self-reports provided much additional information about subjects' perceptions of the program and their concepts of reading and learning to read as well as their outside reading activities.

Achievement and Ability Measures

As part of the program several informal tests and a standardized test, the Gates-MacGinitie Reading Test, were administered at the beginning of the study and at the end of the study. All test results were made available to the researcher. The reading subtest of the Wide Range Achievement Test (WRAT) was administered by the researcher to all subjects at the beginning of the study and to the three subjects who were still in the program at the conclusion of the study.

As well, the Wechsler Adult Intelligence Scale (WAIS) was administered by graduate student clinicians in educational psychology to two of the subjects, Lisa and Karen. WAIS scores for the beginning reader, Mary, were made available with her consent by a staff psychologist at the institution. The fourth subject, Bob, missed three appointments for WAIS testing and thus no WAIS scores were available for him.

C. The Interpretation Process

In keeping with the major focus of the study, the data analysis and interpretation centred around the reading strategies of the subjects and the factors which influenced those strategies. A profile of reading strategies was prepared for each subject. These profiles were examined for patterns and changes in patterns across time.

Interpretations based on the category systems were cross-checked against subjects' strategy self-reports and subject responses to retrospective questions. The results of the strategy interpretations were then compared with the instructional program and other factors such as concepts of reading and self-directed activities to see if relationships could be identified between these factors and change or lack of change in subjects' strategies. Following this procedure other trends, which seemed to be evident in the data, were checked for positive and negative instances as suggested by Becker(1958). If they withstood cross-checking they were developed and documented.

Guba(1981) argues that the criteria used to judge research conducted within the rationalistic research paradigm, including internal validity, external validity, reliability and objectivity, cannot be applied to naturalistic research studies. He does, however, state that naturalistic research must be concerned with the factors which these criteria are intended to address. He lists four "criteria for establishing the trustworthiness of inquiries

conducted within the naturalistic paradigm" (p.1). These criteria are a synthesis of criteria suggested in the literature for the conduct of qualitative research studies. The four criteria are the following: credibility, analagous to internal validity; transferability, analagous to external validity; dependability, analagous to reliability; and confirmability, analagous to objectivity. He is most emphatic that these procedures not be considered as prescriptions for research but rather as guidelines.

Credibility

Guba lists six procedures to be used during a study to establish the credibility of the interpretations of the study: prolonged engagement at the site; persistent observation; peer debriefing; triangulation of data; collection of referential adequacy materials; and member checks. All of these criteria, except member checks, were met to varying degrees in this study. Persistent observations in the setting were conducted over a prolonged period of time. A partial triangulation strategy was used to collect and interpret data. Numerous conversations with advisors and fellow graduate students during the study provided ample opportunity for peer debriefing, a strategy in which the researcher uses professional contact to test his insights and to expose himself to searching questions (Guba, 1981, p.20). Included in Guba's list of referential adequacy materials are audio and video tape recordings and documents. While tape recordings of classroom

activities were not made due to respect for the students' desires for anonymity, audiotapes were made of all sessions with the subjects and copies were made of all reading materials used by the subjects during the study. Guba describes member checks as a process whereby data and interpretations are checked with members of the group from which the data were obtained. This strategy was not used in this study.

Guba lists three criteria to establish credibility following the field work stage: structural corroboration or coherence; referential adequacy and member checks. The triangulation strategy used in this study allowed for the establishment of structural coherence. Interpretations derived from one technique were cross-checked for conflicts with interpretations derived from other techniques. Member checks were not conducted. Guba refers to establishing referential adequacy as a process of testing interpretations drawn from the researcher's observations against raw data, such as videotapes. In this study all audiotapes were transcribed and these transcriptions formed a high percentage of the data from which interpretations were made.

Transferability

Guba believes that research studies conducted in the naturalistic paradigm cannot result in truth statements relevant to all contexts. Rather they result in working hypotheses relevant to a particular context. These working hypotheses are applicable to other contexts to the extent

that there is a fit between the context of the study and the context to which the results of the study are to be applied. Therefore during the study the researcher does theoretic/purposive sampling, sampling which is intended to maximize the range of information covered. Further the researcher collects "thick" descriptive data (a term usually attributed to Geertz, 1973) and presents much descriptive data in the report of the study. Theoretical/purposive sampling is a concept more applicable to studies which are less focused than was this study. This concept was used, however, on a few occasions to check some puzzling aspects of the instructional program.

Dependability

Guba identifies three procedures which the researcher can use to make allowances for instrumental shifts stemming from developing insights on the part of the investigator-as-instrument: overlap methods, such as triangulation; stepwise replication which necessitates the use of a research team; and the establishment of an "audit" trail, that is, careful documentation of the research procedures. The first and last criteria were met in this study. Further Guba suggests that the researcher arrange for a "dependability audit", that is an external check of the procedures used. The supervisory committee of this dissertation study acted as dependability auditors.

Other methods, not suggested by Guba were also used in this study to ensure dependability of the data. Implicit in

Guba's list of suggestions for ensuring dependability is an assumption that research conducted within the naturalistic paradigm will necessarily contain instrumental shifts. In this study the research techniques used to document the subjects' strategies and the techniques used to document the instructional program, the major focuses of the study, did not change over time. These techniques were deliberately held constant throughout the study to guard against shifts in observations over time so that comparisons across time in the subjects' strategies could be made and also so that conclusions about the influence of the instructional program could be made. As well, to maintain internal consistency in the data so that valid comparisons across subjects could be drawn the following procedures were used in coding the data relevant to the subjects' reading strategies: 1) where more than one subject had read a passage (and often three of the subjects read the same passage) all of the protocols were coded at the same time; and 2) at three points in time during the coding of data, data which had been coded at an earlier point in time were recoded so as to ensure consistency in the application of the coding decision rules. This second procedure was also used to ensure consistency in the categorization of instructional materials.

Confirmability

Guba suggests that to ensure confirmability of the data researchers should use a triangulation strategy and they should practice reflexivity. That is, they should reveal to

the users of their research reports the assumptions underlying the questions explored and the assumptions underlying their interpretations. Both of these procedures were followed in this study. Finally, Guba suggests that the researcher arrange for a confirmability audit. That is, the researcher should present extensive documentation to other professionals so that they may judge the adequacy of the interpretations. Such a procedure is inherent in a doctoral dissertation study.

IV. BOB, KAREN AND LISA

A. The Setting

The "0-4" area consisted of one bright, spacious room with four smaller rooms adjoining it. There was a blackboard across the front of the main room, large windows along the side, and tables and chairs. At the front of the room were filing cabinets containing student worksheets. At the back was an area set off as a reading corner with comfortable sofas and chairs and two small bookcases containing adolescent high-interest low-vocabulary books and some Ginn Basic Readers(1961).

Behind the main room was another room used by those students at the very beginning levels of literacy. It contained charts of phonic elements, colour and noun words, letters of the alphabet and two language masters.

There were three small, windowless rooms along one side of the main room. The first room was used to store reading kits, phonically regular reading materials, and a few adult reading materials. The second and third rooms, each containing blackboards, were used for small-group instruction. Supplementary reading materials were also stored in the second room; the third room contained word identification games.

Three full-time certified teachers and one part-time teacher's aide were assigned to this area. Two of the teachers, Mrs. D. and Mrs. M., had worked together in this

area for the past six years. The third teacher, Mr. S., had recently moved from another city, where he had worked with adult illiterates in a community college. The teacher aide was a graduate of the academic upgrading and clerical programs of the institution.

Eighteen students were enrolled in the "0-4" program during the time of the study, down significantly from the thirty-five students enrolled first term. Seven of these students were new to the program. Most of the students in this program were sponsored by one of Canada Manpower, Alberta Social Services or the Department of Indian and Northern Affairs and received a living allowance.

Of the eighteen students in the program, four were Native Canadians, two were immigrants and twelve were native-born English-speaking Canadians. During the study five students terminated the program. One left at the end of the third week, two left in April to take jobs, one was hospitalized in March because of a serious car accident and one was jailed in April after being convicted of a drug offense.

This enrollment reflected the distribution of functionally illiterate adults in the population. Thomas (1976) reported that 75% of functionally illiterate adults in Canada are Canadian-born.

2

B. The Three Students

Who were they?

Of the eight new students who entered the program in second term, three subjects with reading comprehension scores of 3-6 were selected for this study: a young girl whose only schooling had been courses taken through correspondence school (Karen), a recent failure of the public school system (Lisa) and a recently-reformed alcoholic who had left school many years ago at the age of fourteen after many failing experiences (Bob).

Karen, a sixteen-year-old girl from a small isolated community in the northern part of the province, was the fourth child, in a family of nine children, to leave home to seek an education at NBCC against her father's wishes. She had lived her life in an environment where women were treated as second-class citizens. Her father operated the local general store and a ranch. The father and sons lived in a "nice house" on the ranch, her mother lived in a room over the store and Karen and her sisters lived in the "bunkhouse" and cooked meals in a "little house" called the "cookhouse". She had never attended public school. Her father refused to send his children to school with the native children because "they fight all the time". Besides, women don't need an education, "they're not worth it."

In 1975 the oldest girl in the family ran away from home to an aunt who later notified the department of Social Services of the family situation. The family was forced to

enroll the children in the correspondence program for the province. As a result, Karen completed the first three grades of correspondence school. Her mother helped her with grade one. After that, Karen was expected to teach herself and her younger brothers and sisters in addition to helping in the store, cooking for her brothers and sisters, cleaning her father's house, and taking care of the chickens and the vegetable garden. She "quit grade four" last year because she "got way behind. There was too much work to do."

In this environment, with no television and no friends other than her brothers and sisters, Karen had turned to reading to pass the time. A boy in the community had given her a collection of fifty paperback western novels. She had slowly read every one of them.

The effects of this environment were evident in Karen's limited, and sometimes distorted, view of the world. Her scaled scores on the information and vocabulary subsections of the WAIS were very low. She believed, for example, that only natives and white men who had married natives lived in the adjoining province.

Lisa, unlike Karen who was reserved, quiet and socially immature, was a mature, outgoing seventeen-year-old who easily made friends with other students and was well-liked by teachers. While her academic career in the public school system was notable for its failures, she was an accomplished horseback rider who conducted riding classes in the summer and was in charge of her father's riding

stables on the week-ends. Lisa's score on the WAIS placed her in the dull-normal range of intellectual functioning. She started school at age seven and repeated grade one. In grade five she changed schools; in grade seven she was placed in a special program. At the beginning of grade eight she was advised to enroll in a special one-year business program at a vocational high school. Because poor reading and spelling skills made learning to type frustrating, she left the program at Christmas. In January she re-enrolled in grade eight at her old school. She claimed to have requested help in catching up from both the guidance counsellor and the principal, and when no such help was provided, she terminated. She worked for her father in his riding stables for the rest of that year. Last fall, she attempted to enroll in a local high school and was rejected because of her poor reading skills. Through a counsellor at this school she learned about NBCC.

Bob, also a failure of the public school system, at age thirty-five was getting a new start on life. He was gregarious with excellent social skills. All who worked with him were most anxious to see him succeed. He had given up his alcoholic lifestyle seven months ago, and for the past three months had worked as a truck driver. He was on leave from this job to take this course but he continued to do long-distance runs for the company on the week-end.

Bob left school in grade six at the age of fourteen. His memories of school are unhappy. He "blocked out learning

in school" and "when (he) brought home work his father would hit (him) every time (he) made a mistake". He was tested by school officials and a family doctor, and the family was told that there was nothing wrong with him: he was just lazy. Although Bob was an excellent subject because he provided rich data about his learning during the study, he provided little information about his past, particularly the period of his life between leaving school and coming to NBCC. It was evident that he had drifted in and out of jobs and experienced many personal failures that he did not wish to discuss, including a recent jail term.

Why did they come?

The three subjects entered the program at NBCC for a variety of reasons. Karen entered to receive the education she had been denied. Lisa entered to continue her briefly interrupted education so that she could get a job. And Bob entered not only to improve his chances of getting a better job, but also to overcome his feelings of personal inadequacy, which he attributed partly to his low level of literacy.

Excerpt, 1 (Feb. 16)

E: Why do you want to learn to read?

Karen: Well I like reading...I wanted to come here. I wanted to go to school.

In a later discussion with Karen she revealed that she would like to take a business course.

Excerpt 2 (April 17)

E: How far would you like to get? Do you have any idea how far you think you would be able to go.

Karen: In school here? (E: Uh-hmm) I'd like to get at least my grade ten.

E: So do you think that would be possible now?

Karen: Yeh.

E: Did your sister go as far as grade ten?

Karen: One, Joanne.

E: If you got your grade ten, what would that let you do? Do you know?

Karen: Probably go with business. You need grade ten or grade eleven for business, I think.

E: ... So when you first came did you think you would be able to go that far or is it just now that you're seeing that you're doing so well.

Karen: Yeh - I figured I'll be able to go that far if nothin happens.

E: So that was your goal when you came, was it (Karen: Uh-hmm) to get your grade ten?

Karen: Yeh.

While Lisa was less confident than Karen that she would reach her goal, and at times has moments of doubt, she was hopeful that this time the educational system would not fail her.

Excerpt 3 (April 17)

E: Oh, so that's why you're disappointed (with results of mid-term testing), that you didn't get to the grade six level.

Lisa: Right. Mrs. M. said I'll get there. She said guaranteed. Just gotta keep on trying.

Lisa, like Karen, entered the program primarily for job-related educational reasons.

Excerpt 4 (Feb. 19)

E: Why do you want to learn to read?

Lisa: So I can get a job. And I have to learn how to read so I can get my goal to be a nurse's aide.

Her first interview also revealed a concern with her inability to read well orally.

Excerpt 5 (Feb. 19)

E: What about your life in general. Has it been any problem to you not being able to read?

Lisa: Yeh, cause people ask you - Well you're sittin there readin the paper and people say ... Read this for me and you know you try to read it and a big word comes along and you're stuck. So you need it.(reading)

When asked a similar question in the first interview, Karen had looked puzzled and gave no reply.

As the study progressed it became clear that being able to read well orally was a major concern for Lisa. She mentioned it on several occasions in response to questions regarding her reading and how it was improving.

Excerpt 6 (March 16)

E: Why do you want to improve your reading?

Lisa: So I can read anything. Like you know sometimes you get together with your friends or something and you have to take turns reading, like you'd rather read as good as the rest. So you wanta improve yourself.

To some extent, Lisa's concern with oral reading was

justified, for she was expected to read the horoscope in the evening newspaper to her mother and the farm ads to her father.

Whereas Karen's and Lisa's reasons for entering the program were primarily job-related, Bob's were primarily personal, although he did have a stated job goal as a truck dispatcher. Students were required to indicate a job goal to gain admittance to the program.

Excerpt 7 (Feb. 14)

E: Why do you want to learn to read?

Bob: So I can better myself, feel better about myself. I can get into more things that I would like to get into. I feel I'm cheating myself. ... I would like to maybe be a baseball coach or a hockey coach for kids and I'm not quite sure of the fundamentals and what not ... I can go to the library. Otherwise I can't do that. I feel that I can't do that and I withdraw.

During this first interview Bob also revealed his feelings of inferiority because he was not able to read.

Excerpt 8 (Feb. 14)

E: Has not being able to read caused you any particular problems. - I guess that's kind of related to what we've been talking about.

Bob: Yeh, it has held me back in my work field. You're sort of limited to doing my work. Truck driving was fairly simple. I worked in the yard. I didn't have to read or write - and then I had to work extra harder to make up for that.

E: You mean you felt you had to work extra hard cause you couldn't read?

Bob: Yeh

E: That's interesting - You mean like on the job?

Bob: Well on the job there would be fellows out of college and what-not up there an uh - I would try to outwork them so that the boss would take a look at me and say that I am a good worker even though - when they find out that I couldn't read or write.

E: Did your boss know that you couldn't read or write?

Bob: No, I tried to hide it pretty good. They found out though. (E: Oh, they did.) They find out. They know. The way you talk and stuff.

E: Did your boss ever say anything?

Bob: No, no one says nothing.

E: But you felt that they knew?

Bob: Well you can only hide things for so long and people get to know you.

Bob, like Lisa and Karen, viewed the term as one step in his education and had realistic expectations for the five months ahead.

Excerpt 9 (Feb. 14)

E: How much would you expect to accomplish in the five months that you're here?

Bob: If I could get two grades, two grades and I think I can do that.

E: So with two grades do you think you could be a dispatcher then?

Bob: Oh, two grades will only give me that much education, but there's always the followin year - I could get, say, even a grade seven - I could learn on my own through home courses and night school.

To Karen reading was something you did to pass the time.

Excerpt 10 (Feb. 16)

E: Why do you think people read?

Karen: If they've got nothin to do it's a good thing to read?

This concept of reading was a direct reflection of her own use of reading.

Excerpt 11 (March 16)

E: When do you usually read?

Karen: Sometimes I read before I go to bed or I read when I have nothin to do.

While Lisa and Bob read far less than Karen, they had broader concepts of purposes for reading.

Excerpt 12 (Feb. 14)

E: Why do people read?

Bob: Some people read to learn. They read stories because it's interesting too.

Excerpt 13 (Feb. 19)

E: Why do people read?

Lisa: To learn more about something - or for pleasure.

An attempt to discover the subjects' views of how people read quickly led to a discussion of the strategies the subjects' themselves used when reading.

Excerpt 14 (Feb. 19)

E: What do you think people do when they read? How do people actually read?

Lisa: They read the words and they have to get the moral

of the story so they have to read the words right.

E: ... How do they actually read those words?

Lisa: They sound them out.

E: What do you mean by "sound them out"?

Lisa: Like break them up in syllables and sound them out.

E: If you were reading and came to a word that you didn't know right away how could you figure out what the word is?

Lisa: Um - break it up. That's how I do it.

E: That's how you do it?

Lisa: Yeh. I break it up. And if I still don't know it, after I read the rest of the sentence then maybe I'll know the word. And I'll see what word fits in.

E: Any other ways besides those two.

Lisa: Those are the ones I use.

Like Lisa, Bob was aware of reliance on surrounding context as a useful reading strategy.

Excerpt 15

E: If you were reading and came to a word that you didn't know right away, how could you figure out what that word is?

Bob: By sounding it - or I read on, and I'll come back to that word, and if it's a word I think fits in, it sounds good, then I know what is what.

However, unlike Lisa, who viewed "sounding it out" as syllabication, Bob's concept of "sounding it out" was a vague notion of blending the sounds of the letters.

Excerpt 16 (Feb. 26)

E: What exactly do you mean by "sound it out"? How would you sound out a word you had trouble with?

Bob: The only thing I can do is sound out what the letter says, like "a" is |a|, "o" is |o|. 'Cause I don't know those - vowels? And a lot of my words like - ash(word read in story) - well that word just came to me. I don't know how come. I guess it fit in eh - a lot of the words would just fit in. Like important - that word just fell in to me. Well it fits in with the story.

Throughout the study, Bob often remarked that vowels gave him problems and that his reading would improve a lot if he could "just get those vowels straight". Lisa also viewed learning the vowel sounds as key to improving her reading skills.

Excerpt 17 (Feb. 19)

E: What do you think they will do here to teach you to read? How do you think they're going to teach you to read?

Lisa: Learn the vowel sounds and like where to break up the words in syllables. And - learn what the letters say like a long "e" or "a". More or less learn the vowels so you can pick them up.

While Lisa and Bob both had definite ideas on how their reading skills could be improved, Karen had no specific ideas.

Excerpt 18 (Feb. 19)

E: How do you think they're going to teach you to read here? What kinds of things do you think they'll do to teach you to read?

 "Letter" indicates the name of the letter. |Letter(s)| indicates the sound(s) of the letter(s). Boldface type indicates a short vowel sound. *Italic* type indicates a long vowel sound.

Karen: (very long pause) Probably writing all the time and things like that.

She was aware, however, of structural analysis as a word identification strategy.

Excerpt 19 (Feb. 19)

E: If you were reading and came to a word that you didn't know right away, how could you figure out what the word is?

Karen: You gotta try to sound it out.

E: What do you mean by sound it out?

Karen: (very long pause)

E: (Discussed a word that she had broken up into syllables during oral reading and asked her if this was what she meant)

Karen: Yes.

E: Is there any other way that you could use?

Karen: Well you can break em up - like some (words) they have small words in them.

E: Any other ways you can think of?

Karen: The vowels and the long vowels.

While Karen gave no indication of an awareness of reliance on context as a reading strategy during this first session, she did indicate that she viewed reading as a meaning-getting process.

Excerpt 20 (Feb. 19)

E: How do you think people read? What do they actually do when they're reading?

Karen: Well they gotta think it and have it in their mind after they read it so they- so they couldn't forget it - know what the story's about.

Karen did reveal at the end of the study that she was aware of reliance on context as a strategy, and in fact, had always used this strategy in her own reading.

Excerpt 21 (May 9)

E: If you were reading and came to a word that you didn't know right away, how could you figure out what the word is?

Karen: Try to sound it out?

E: Ok Is there any other way that you could use besides trying to sound it out?

Karen: Like what it's talking about then you can know what the word is?

E: So when you're reading yourself which do you use more often - sounding it out or going by the story?

Karen: Mostly going by the story. Sometimes sounding it out.

E: Did you always used to do that - go by the story?

Karen: Yeh, go by the story or sound it out.

C. Subjects' Reading Strategies at the Beginning of the Study

As described in chapter III, the researcher inferred subjects' reading strategies from analyses of oral reading errors, from audible attempts on words during oral reading sessions, from analyses of oral recalls of passages read silently and from subject self-reports.

Data from Oral Reading Tasks

During the first session Karen read orally the grade three to six passages on the Silvaroli Classroom Reading

Inventory with accuracies ranging from 94.6 percent to 100 percent. She could not cope at all with the grade seven passage and discontinued it before the end. Lisa also read orally the grade three to six passages on the Silvaroli Inventory with accuracies of 95 percent and 96 percent on the grade three and four passages and 89 percent and 91 percent on the grade five and six passages. She also gave up on the grade seven passage. Bob read orally the grade two and four passages of the same inventory with accuracies of 94 percent and the grade three passage with an accuracy of 89 percent. He discontinued the grade five passage in the second paragraph.

Bob: In the first oral reading session with Bob, it was evident that, as he indicated in Excerpt 15, he relied on the ongoing meaning of the passage to predict words as he was reading, and to monitor his oral productions. It was also evident that his vague description of "sounding it out" described in Excerpt 16, reflected a paucity of strategies for processing graphic cues within words.

Bob's use of meaning to predict words was evident in his reading of the grade two and three passages. He quickly read these passages, and the majority of his errors, 65 percent, were errors which occurred in the flow of reading and which did not interfere with the author's intended meaning. They involved substitutions of function words e.g. "the" for "their", "the" for "this"; omissions of function words; and the addition or deletion of inflectional endings.

Excerpt 22 (Feb. 14)

Text: (from Smart Birds) Birds have to eat gravel because they don't have teeth to grind their food. The gravel stays in the bird's gizzard which is something like a stomach. When the bird eats seed, the gravel and the seed grind together.

Bob: Birds have to eat the gravel by (whispered "certain") they don't have teeth to grind the food. The gravel stays in the birds - I don't know that word - which is something like a stomach. Then the birds eat seeds and gravel and they, the seeds grind together.'

Bob's correction behavior during this session indicated that he monitored carefully for meaning. He corrected only those errors which were inconsistent with the meaning of the text, and allowed textually consistent errors to go uncorrected. This was most evident in his reading of the grade four passage. While only three of his ten errors were categorized as textually consistent, three of the six errors categorized as textually inconsistent were corrected, and an unsuccessful attempt was made to correct the fourth error. The other two errors were the words "develop" and "interested" which he was unable to identify.

A comparison of Bob's performance on the Reading Subtest of the WRAT, a words-in-isolation test, and his performance on the grade four and five oral reading passages indicated that when he was unable to rely on the meaning of a passage to predict a word, his strategies for analysing the graphic cues within words were insufficient to allow him

' Note how how Bob added and deleted "s's" in the last sentence to make the sentence syntactically consistent, an indication that he used language knowledge to predict when he was reading.

to identify the word correctly. He used two strategies. He deliberately skipped the word, making no attempt to analyse it, as he did with "gizzard" in Excerpt 22, or he appeared to attend to the consonant letters, selecting some or all of the consonant letters of the target word and attempting to produce a real word with the same initial consonant as the target word, e.g. "corporal" for "collapse", "spawning" for "snapping", "helmet" for "humidity", "spread" for "sharp".

On the WRAT he deliberately skipped many multisyllabic words, making no attempt to analyse them. In the first paragraph of the grade four passage of the Silvaroli he correctly identified "interesting" in the context of "take interesting pictures", but was unable, in the last paragraph, to identify "interested" in the context of "Men and women are interested in sky diving". He deliberately skipped the word, and there was no audible evidence of any attempt to analyse the word. Slight evidence suggests that Bob had generalized some common prefixes. On the grade four passage he immediately pronounced "de" in "develop". He then lightly whispered "living?" and went on. On the grade five passage he immediately pronounced the unit "ex" in both "expect" and "expert". He then read "expert" as "export", a real word differing by only a vowel from the target word. However, with the word "expect", he made no further attempt to use the graphic information within the word, but tried rather, unsuccessfully, to use this minimal graphic information and the accumulated meaning to predict the word.

Excerpt 23 (Feb. 16)

Text: These men trained blind seals to expect food ...

Bob: These men trained blind seals to ex - retrieve or something, I don't know - food.

Karen: While there was strong evidence in Bob's first reading session that he used meaning to predict and monitor while reading, the categorization of Karen's oral reading errors suggested little evidence of reliance on semantic cues. She made few errors, and of the 17 errors which she did make, only four were textually consistent errors which occurred in the flow of reading. Karen also rarely corrected errors, correcting only four errors. These four corrections were evenly distributed across the textual categories.

An analysis of Karen's overt attempts on words indicated that she had much better graphophonic knowledge than Bob. It was evident that she had generalized many of the common prefixes, e.g. re, in, ex, dis, en, sub, some suffixes, e.g. y, ly, and some of the letter-clusters, particularly the consonant-vowel-consonant(CVC) and vowel-consonant(VC) patterns. During deliberate attempts on words, she often immediately pronounced the prefix and then paused to analyse the remainder of the word, e.g. "ex -(pause) - perts" for "experts", "sub, sub - merage" for "submerge", "re -(pause) - reason" for "recession". CVC and VC patterns were identified wherever they occurred in a word, indicating that Karen did attempt to process all parts of a word; e.g. "re - pug - ant" for "repugnant" "air - on -

tic" for "aeronautic", "re - skin" for "rescinded", "com - pet - tor" for "competitor". With multisyllabic words which did not contain a CVC or VC pattern in the middle portion of the word, Karen usually selected known affixes and/or letter-clusters from the beginning and end of the word, associated appropriate sound units to these selected units, and attempted to produce a word-like structure. For the middle portion she substituted a sound unit which often contained a sound or sounds associated with a letter or letters contained in the middle portion of the target word, e.g. "en-vil-dor" for "endeavor", "o-causally" for "occasionally", "rid, ridgushus" for "ridiculous".

The analysis of Karen's attempts on words suggested that the categorization of errors oversimplified the interpretation of the data. While the categorization suggested that she did not use semantic cues effectively in reading, the analysis of her attempts on words on both the WRAT and the oral reading passages, combined with her own self-reports (see excerpt 22) in which she stated that she used meaning to predict words, suggested that Karen's lack of effective use of semantic cues may have been due more to insufficient world knowledge than to a lack of awareness of the strategy or the lack of a desire to use this strategy.

While Karen often identified correctly many of the letter-clusters within words in her attempts on words, she was able, in the oral reading of the passages, on only two occasions to use her world knowledge to synthesize these

cues into a real word. Fifty-three percent of her errors on the oral reading passages were errors on which she made a deliberate attempt to analyse the word, selected many of the letter-clusters and associated appropriate sound units to these clusters, but then synthesized these units into a nonsense word-like structure, e.g. "sanitaria" for "sanctuary", "submrage" for "submerge", "marrals" for "mammals", "quarfilded" for "qualified". While, in her reading of the passages, she almost always attempted to produce a word-like structure, on the WRAT, a words in isolation test, she often made no attempt to synthesize the selected units into a word-like structure. She processed the word from left to right, selected and associated sound units to letter-clusters, and made no attempt to synthesize them into a word, e.g. "im-pra-sis" for "emphasis", "ka-ran-tine" for "quarantine", "air-on-tic" for "aeronautic".

Karen may have been unaware that the nonsense word-like structures which she produced in reading the passages were not real words. It is suspected that she sometimes assigned a pronunciation to a word, thinking it was a word that she had not heard of before. During this session Karen produced two unusual pronunciations for words: "purposes" for "purposes" and "dis-tance, distance" for "distance". An attempt was made later in the study to verify this suspicion.

Lisa: In the first oral reading session with Lisa it was evident that she attempted to make use of both graphic

and semantic cues when reading, that she made some attempt to integrate the two cue systems, but that she relied more strongly on graphic cues than she did on semantic cues. Seventy-six percent of her errors were categorized as having high or medium graphic similarity while only 34 percent of her errors were categorized as being textually consistent. These results were consistent with her own statement, reported in excerpt 14, of how she attempted to identify unknown words. In that excerpt she indicated that she first tried to use graphic information and then, if unsuccessful, tried to sample more semantic information. It was suspected that this strong reliance on graphic information was due in part to her expressed concern over her oral reading performance (see excerpt 4). She did not trust herself to take chances when reading, for she was overly concerned with her production.

During the first session Lisa's oral reading performance was much more hesitant than that of Bob or Karen. She often whispered words such as "tap", "stick" before saying them, hesitated after long words and at other times used the voice pattern for a question when reading a statement as if asking for assurance.

The categorization of Lisa's oral reading errors indicated that she carefully monitored her oral productions for meaning. Like Bob, she corrected or attempted to correct errors which were only partially contextually acceptable or totally contextually unacceptable and allowed contextually

acceptable errors to go uncorrected. Of the 54 percent of her errors categorized as having partial or no textual consistency, 60 percent were corrected successfully and unsuccessful correction attempts were made on 14 percent of these errors.

The analysis of Lisa's deliberate attempts on words on both the WRAT and the passages indicated that Lisa, like Karen, had generalized many of the common prefixes, e.g. "re, de, sub, in" and common affixes, e.g. "able, ion, y, ly", and common letter-clusters, particularly CVC and VC patterns. This analysis also indicated that she was very systematic in her approach to analysing graphic cues within words. As she indicated in excerpt 14, she attempted to chunk each word into known orthographic units. She always attempted to process each unknown word from left to right, sometimes using her finger, selecting the orthographic units she had generalized, ignoring letters which did not fit the patterns, and sometimes adding sounds or sound units, e.g. "san-i-tar-y, sanitary" for "sanctuary", "sub, sub-merag?" for "submerge", "air-on-a-tic" for "aeronautic", "ma-ter, materals?" for "materials", "a-say-shunally" for "occasionally" "con-si-der-able" for "considerable".

While Lisa often associated appropriate sound units to significant portions of target words, and while she usually attempted to synthesize the units into a word-like structure, she was often unable to synthesize the units into a real word. Unlike Karen, when reading the passages, she

always indicated by remark or voice tone that she realized that she was not producing a real word.

There was some evidence that Lisa read ahead to make use of semantic cues in identifying unknown words. While she and Bob had both indicated in their initial interviews that they used this strategy, it was only in Lisa's reading that there was overt evidence of this strategy.

Excerpt 24 (Feb. 19)

Text: (from An Underwater School) They easily learned to tell the difference between the sounds.

Lisa: They easily learned to talk the different (stops) (begins whispering) between the - The easiest no - the between the sounds. (now says loudly and quickly) tell the difference between the sounds.

There was also evidence on one occasion of an attempt to utilize both graphic and semantic cues in attempting to identify a word. As indicated in excerpt 14, Lisa first tried to analyse the graphic information and then read on.

Excerpt 25 (Feb. 19)

Text: A team of experts proved that...

Lisa: A team of ex - per - t (lightly) - expert - proved, no - (starts whispering) - A team of expert proved - (now loudly) A team of experts proved.

Data from Unaided Recalls

Lisa and Bob were asked to give recalls for the third and fourth grade passages from Part B of the Silveroli, while Karen was asked to give recalls for the fourth and fifth grade passages because of her higher level of oral

reading performance. These passages were chosen because they represented levels at which the subjects had achieved a word identification accuracy level of 92 percent on the oral passages.

The differences in the recalls of Karen, Lisa and Bob were evident in their recalls of the fourth-grade passage, "A Great American Sport", which they all read.

Excerpt 26 (Feb. 14)

Text: The history of baseball shows that the game has changed a great deal since it was first played. In 1839, Abner Doubleday set up the rules for playing a baseball game.

Later on, uniforms appeared. The players wore long pants, a fancy white shirt and a straw hat. The umpire wore a long coat, a tall silk hat and carried a cane. Rakes, ax handles and tree branches were used as bats.

The first World Series was played in 1903. Baseball fans wanted to see the top teams from the two major leagues play. The winners would be the champions of the baseball world.

Bob's Recall: In 1938, I think it was, baseball started by I can't understand that guy's name. And uh the umpire he wore a long coat with a straw hat, top hat. The players wore a straw hat and uh - I forget what's on the end - something about - a year when the first championship, the two leagues played together for the champion - 1903, 1803, 1903, or 1803, which was it?

Although the dates were confused and some details were missing, Bob had recalled or attempted to recall the main information contained in the passage. He seemed to try to organize his recall around the paragraph structure of the passage, as was evident in his comment "I forget what's on the end". This organizational strategy was also evident in

his recall of the third grade passage, which consisted of three paragraphs. After giving an accurate account, in sequence, of the information contained in the first and third paragraphs of the passage, he ended his recall with the comment "I forget what went in the middle".

Lisa also omitted the information from the middle paragraph of the third-grade passage in her recall of that passage. The remainder of the recall was an accurate representation of the text information. However, her recall of the fourth-grade passage was not nearly so accurate.

Excerpt 27 (Feb. 19)

Lisa's Recall:(on "A Great American Sport") It's about baseball and when they played they wore a long pants, a white shirt and uh carried a umbrella and a cane. That's when they were comin to the game. And they were playing the game they were gonna wear pants and shirt, but they'd wear tall silk hats And the first game was invented in 18 oh 1839 and the rules were invented in 1803. That's it.

Lisa, in this recall, combined some accurate text details, such as the types of clothing worn and dates, in erroneous ways. She attempted to weave these details into a plausible story, dividing up the articles of clothing worn into "coming to the game" and "playing the game", and assigning the invention of rules to a date, albeit erroneous, for which she still had to account. This recall was probably a result of the strategy (described below) she used to help her organize her recall. Before giving the recall she had reread parts of the passage. She was asked

about this at the end of the session.

Excerpt 28 (Feb. 19)

E: What did you do when you went back over it?

Lisa: See I couldn't make out some of the words so I went back and just looked for - like pointers like uh what they wore and when they started. And when they finished and how rules, you know...

E: So you went back to look for things you thought were important to remember?

Lisa: Yeh

E: Some of the words that you didn't know. Were you able to figure some of them out the next time?

Lisa: I didn't get that. I just looked at the words that I did know and tried to make out what I could from them.

While Bob and Lisa appeared to view the task as giving back all of the information in the passage and appeared to use deliberate strategies to do so, Karen's recalls were so brief and general that little could be inferred from them. The first recall consisted of a general statement about the topic of the passage, while the second recall consisted of a few details from the passage.

Excerpt 29 (Feb. 19)

Karen:(recall on A Great American Sport) It's talkin, it's tellin about what they wear when they play baseball and things like that.

E: Ok, anything else?

Karen: No.

Karen: (recall on The Preying Mantis) The preying mantis is a is a cousin to the grasshopper. It eats other insects. It ruins plants.

Karen's limited recall on this task, in sharp contrast to her high levels of accuracy on the oral reading tasks left two major unanswered questions. Was this, in fact, all that she remembered of the stories? Or, was her performance due to her perception of the task? At the end of the study attempts were made to assess Karen's perceptions of the task. A follow-up questioning strategy was used to assess further her comprehension and recall of texts read. These attempts are reported later in this chapter.

D. The Program

Excerpt 30 (Jan. 31)

Mrs. M.: The main emphasis in this program is getting ready to be good employees. Reading is a small part of getting ready for a job. Reading and writing are not the main objectives in this program anymore. It's important to have a goal now. You must have a vocational goal. You cannot have a goal only of learning to read and write.

Thus Basic Job Readiness Training (BJRT), a Canada Manpower Program designed to give people the social skills necessary to hold a job, was held in the afternoon period during the program. The academic program, except for mathematics, was completed in the morning. Mrs. M. described the academic "0-9" program by drawing a line on the blackboard.

Sounds of letters ___ Words ___ Sentences ___ Paragraphs

Excerpt 31 (Jan.31)

Mrs. M.: You learn the sounds of the letters and put them together to make words. You put words together so you can read and write sentences. And in this class we just go to the very beginning of paragraph writing.

What Mrs. M. did not mention was that, while the development of reading and writing skills were the stated major goals of the academic portion of the program, writing skill was the main criterion by which decisions were made to move students to a higher level in the program. To move into the next level the student had to pass a paragraph-writing test marked by the head of the English department.

Mrs. M.'s description of the program accurately described the orientation and the sequencing of learning activities in the program. This program was put into action through three types of instructional periods: 1) individualized periods, 2) group phonics classes and 3) group reading classes.

Individualized Periods

Individualized periods were held during the first hour of every morning. Students worked at their own pace on sight word skills and writing skills while the instructors circulated, correcting work and giving assistance.

Sight Word Program: The sight word program consisted of a list of 604 high frequency words. The list was compiled by the teachers from available sight word lists. The words were divided into groups of 12. For each group, the student had to learn how to spell the words, write a sentence for each

word, and complete a minimum of three exercise sheets which involved reading sentences containing the words, unscrambling words to make a sentence and filling in blanks in sentences with one of the 12 words. To move onto the next set of twelve words the student had to pass a teacher-administered test which consisted of a one minute timed reading of all words learned to date, a spelling test on the new words and two "teacher drills" in which the student had to select quickly from a list of words the word called by the teacher. During the initial testing period students were given a spelling test on the sight words. They were started in the sight word program at the point where they began to experience difficulties on this spelling test. During the study, Lisa and Karen completed sight words 188 to 329. Bob completed sight words 12 to 109.

Writing Program: The writing program consisted of 21 units: 1)tracing letters, 2)copying words and sentences, 3)copying paragraphs, 4)recognizing sentences, 5)statements, 6)questions, 7)punctuation and capitalization, 8)action and non-action verbs, 9)phrases, 10)prepositions and function words, 11)contractions, 12)adjective and adverb expansion, 13)use of suffixes, 14)verb forms, 15)answering "who, what, when, where, why and how" questions, 16)pronouns, 17)verb-subject agreement, 18)commands and exclamations, 19)compound sentences, 20)complex sentences and 21)beginning paragraphs. While there were some variations within units, each unit followed a common pattern. The student identified

the element by underlining it or circling it in sentences, wrote sentences with the element and completed sentences using the target element. Unit 9 on phrases is a good example. The first four sheets contain 70 sentences, in which the student is required to underline the phrase in each sentence. On six sheets the student is required to identify phrases as answering one of the questions, "who, what, where, why, when or how". On two of the exercise sheets the student is required to supply missing prepositions in sentences. Two sheets contain phrases which the student has to rearrange to make a complete sentence. Four sheets contain 73 phrases which the student must use in writing a "good" sentence. And finally, there are four sheets containing 80 sentences which the student must expand by adding one or more phrases.

At the beginning of the term the students were given a mastery test which contained sections representing each of the writing units. Each failed section was recorded and circled on an assignment sheet given to the student.

Students were usually expected to complete all worksheets within a unit before beginning the next assigned unit. While there was some leniency with this policy, the three subjects in this study always completed at least 90 percent of the sheets in a unit before moving to the next unit. During the study, Lisa completed writing units 3, 4, 5, 6, 8, 10 and 11; Karen completed units 3, 6, 9, 10, 11 and 12; and Bob completed units 3, 5, 6 and 7.

Correction of Individualized Sheets: All corrections were done by the teachers or the teacher's aide. During the correcting session the student read orally all of the sentences or words on the worksheet plus his written responses. With few exceptions, errors in either the written responses or the oral reading were immediately noted and/or corrected. The student was expected to correct later all written errors. If too many errors had been made, the student was required to do another copy of the sheet. Teachers often spent a half hour with one student, correcting work in this manner.

Phonics Classes

Students were placed in phonics classes according to the results of the teacher-made Phonics Inventory Test, a copy of which is included in Appendix E. This test surveyed student skills in consonant sounds, blends, vowels and digraphs. The format was that of a spelling test. In the section on vowels, for example, the students wrote the letter representing the vowel sound they heard in the middle of words pronounced by the teacher.

There were three phonic groups. Karen and Bob were placed in the middle phonics group taught by Mr. S. Lisa was placed in the "highest" group taught by Mrs. M. Two one hour phonics classes were held each week, one on Monday and the other on Tuesday.

Mr. S.'s Phonics Classes: The purpose of the class was, as stated by Mr. S., to learn how to match sounds with

letters correctly. "It doesn't matter if it means something; the pronunciation is important." The pattern of the class was always the same. There were six students in this group.

The class observed on April 17 was typical of all the phonics classes of Mr. S. observed during the study. During the class on April 17, ten sheets on initial consonant blends, which had been assigned for homework, were corrected. For each sheet, the students took turns orally reading the exercises and their written responses to them. Everything on the page, including all directions, was read. During this time all oral reading errors were noted and assistance was given by Mr. S. in one of five ways or combination of them: 1) he indicated that an error had been made, e.g. "No" or "No, not Don but ___"; 2) he immediately provided the correct response, e.g. when the student said "trick" for "tricks" Mr. S. said "tricks"; 3) he named letters and asked how they are pronounced, e.g. "t" "w" says what or "How do we say "p" "l"?; 4) he provided the sound of the letter or letters for the student, e.g. "Not |o| but two o's say |oo|; 5) he modelled the syllabication of multisyllabic words, e.g. in - tro- duce. Mr. S. used the first three types of assistance most frequently.

During this particular session the students, particularly Bob, experienced difficulty with the vowel sounds. In response to this perceived difficulty, Mr. S. discussed at the end of the class the usefulness of using surrounding context to aid in identifying unfamiliar words.

This was the only time during any of the observed phonics classes that Mr. S. made any reference to the use of context as a reading strategy.

Excerpt 32 (April 17)

Mr. S.: If you use the wrong vowel, for example long "i", the sense will help you get it. You can get it by the sense. (reread a sentence and read "stifly" with a long "i" sound). Is that close enough? I think so. Knowing the blends at the beginning and the end will help you get it - from the sense of it.

During the class Mr. S. often stopped to clarify the meaning of a word. He would ask "What does ___ mean?" Students often responded with a phrase containing the word, e.g. for "polar", "like a polar bear", and, provided somebody had at least used the word correctly in a phrase, the answer was accepted and no further explanations were sought or provided. Bob often provided the acceptable response. If no student could provide an acceptable response, Mr. S. would explain the word. This sometimes led to a five or ten minute discussion. In the April 17 session, the consideration of the word "introduce" led to a discussion of job introduction and the social requirements of coffee breaks. At least one or two such digressions, either on job-related, social skills or what Mr. S. called "general knowledge", was evident in every phonics class observed. During the April 17 session the word flag led to Mr. S.'s providing information on the adoption of the Canadian flag in 1965, recounting many interesting anecdotes

of the parliamentary debates during that period. Mr. S. seemed to come alive during these digressions and he did have interesting tales to tell. These digressions may have been his attempt to provide a break in the class routine. On the other hand, Mr. S. had often commented on the lack of general knowledge of these students; these digressions may have been his deliberate attempts to provide the students with general information.

During the study, between February 19 and the end of April, the students in this group completed 76 worksheets on consonant blends. These worksheets were of three basic types: 1) pictures of objects to which the student responded by choosing the correct blend, or writing the correct blend, heard at the beginning of the word represented by the picture; 2) lists of isolated words to which students responded by circling the beginning blend or substituting a blend for the initial consonant to make a real word; 3) sentences with a word missing, to which students responded by choosing the correct word and writing it in the blank. The phonic skills were never directly practised in the context of a paragraph or story.

Mrs. M.'s Phonics Class: Mrs. M.'s phonics classes were less predictable than those of Mr. S. More direct teaching was included in the lessons, with a greater variation in

* Mezirow, Darkenwald and Knox (1975) reported the use of "diversions" in their study of ABE classrooms. They attributed these diversions to an attempt to break the monotony of class routine or to relieve tension.

practice activities. The two classes held consecutively on May 7 and 8 included all of the types of activities encountered in any of Mrs. M.'s classes. As is evident in these two sessions, not all activities were used on any given day. Neither was the two-day pattern always the same.

During the first five minutes of the class on May 7, the two sounds of "oo" were reviewed.

Excerpt 33 (May 7)

Mrs. M.: There are two sounds that "oo" can make. |oo| as in "shook" and |oo| as in "room". They call |oo| as in "room" long "oo" on the sheets. If it says |oo| as in "shook" they call it the short sound.

The instruction was focused on the explanations on the top of the worksheets. Mrs. M. often repeated the explanation and elaborated upon it, by providing more examples. This short teaching session was typical of the type of instruction provided during these classes.

During the May 7 class two worksheets were corrected. A fifteen minute dictation session at the blackboard followed. Dictation exercises on the blackboard were a frequent occurrence in these classes. Each student took an area of the blackboard and spelled words dictated by Mrs. M. During this session they practised spelling "oo" words.

Mrs. M. then assigned eleven worksheets on "oo" from the phonics file and pages 11 - 16 in the workbook for "Action Reader" were then assigned for the next class. Students were given the last half hour of the class to work

on the assignment.

The entire class the next day was spent correcting the worksheets and workbook pages assigned during the May 7 class. This procedure was unusual, for while correcting was often done during a class, Mrs. M usually included a dictation session as well.

Seven of the 11 assigned worksheets were corrected during this class. The remainder were handed to Mrs. M. for marking. There was greater flexibility in the manner in which worksheets were corrected in this class than there was in Mr. S.'s class. Worksheets were corrected in class in one of three ways: 1) students took turns orally reading the exercises and their responses to them; 2) students took turns orally reading only their responses to the exercises; 3) Mrs. M. read the correct answers to the exercises. Further, as occurred in this session, Mrs. M. often collected some of the worksheets and corrected them for the students.

Although there was one occasion during these two sessions on which a student was encouraged to use context to correct an oral reading error, Mrs. M. usually corrected oral reading errors immediately. Four types of correction assistance were evident: 1) she indicated an error had been made, e.g. "no" or "the what?"; 2) she supplied the correct word, e.g. when a student said "doesn't" Mrs. M. said "don't"; 3) she drew attention to particular phonic elements, e.g. "that's a long 'o'" or "there's two o's

there"; 4) she modelled the breaking up of part of the word, e.g. "it begins with a blend |pr|" or of the entire word, using letter blending for monosyllabic words and syllabication for multisyllabic words, e.g. |t| - |oo| - |th| for "tooth" and dis - as - ter for "disaster". The first two types of assistance were used most frequently.

During correcting, some work on vocabulary development was included. Mrs. M. would often stop and give a brief definition of a word, e.g. "When you pause for something you stop for a little while" and "An avalanche is a big snowslide".

During the last half of the period on May 8 the assigned workbook pages from "Action Reader" were corrected. The students had begun working in this book in early May. These pages were the first work done in this phonics class in which the student was expected to apply the phonics being learned in the context of a story. Until now, all of the worksheets had involved working with words in isolation or within the context of unrelated sentences. The exercises in "Action Reader" are related to first-person account action stories. In the pages corrected during this session, two stories were read, one on a mudslide and one on an avalanche. Multiple-choice questions and cloze-type exercises related to the stories were completed.

At the end of the period worksheets to supplement the work done on "au" in the "Action Reader" pages were assigned.

Excerpt 34 (May 8)

Mrs. M.: I don't want you to take any more in the book. I'm going to give you sheets on "a" "u" so you can get |au| firmly fixed in your minds.

Mrs. M. clarified the directions and teaching sections on the assigned pages before dismissing the class.

During the study Lisa completed 32 worksheets on syllabication rules, 26 worksheets on "oo" words, four worksheets on "to, too and two", four worksheets on "there, their and they're" and 15 pages in the "Action Reader Workbook". Of these 15 pages, eight pages were on "oo" words, four pages were on "au" words and three pages were on "would, could and should".

Most of the worksheets required the student to work with words in isolation. Of the 32 syllabication worksheets, 28 required the student to apply rules, such as counting the number of vowels heard in words, or principles, such as "divide between the two consonants", to lists of words in isolation. Eighteen of the 26 worksheets completed on "oo" words required the student to work with words in isolation, and over half of these worksheets contained lists of words to be identified as having the "long oo" sound or the "short oo" sound.

Group Reading Classes

Mr. S.'s Reading Classes: There were two one-hour reading classes on Thursday and Friday mornings. Students were assigned to reading groups on the basis of results on

the vocabulary and comprehension sections of the Gates-MacGinitie reading test, administered during the first week of each term. Karen and Lisa had made identical scores on this test, scoring grade equivalents of 4.7 on the vocabulary section and 3.6 on the comprehension section. Bob had also scored a grade equivalent of 3.6 on the comprehension section and 3.3 on the vocabulary section. These three students were, therefore, all placed in Mr. S.'s reading group, the "middle" group. There were eight students in this group.

As with his phonics classes, Mr. S.'s reading classes followed an invariant pattern established during the first class. The class observed on March 16 was typical of all such classes. During the first fifteen minutes there was a "check of their comprehension" as Mr. S. called it. During this time, the stories read in "New Practice Readers, Book B" the previous day were discussed. Students were not allowed to refer to their books during the discussion. The discussion was usually started by a general question such as "What did we read yesterday?" Further facts regarding the story were then elicited.

Excerpt 35 (March 16)

Mr. S.: What did we read yesterday?

Student: Kiwi birds.

Mr. S.: Where do kiwi birds live?

Student: New Zealand

Mr. S.: Where is New Zealand?

This last question led into a discussion of Australia and New Zealand, which included locating them on the map. This discussion led to a consideration of gravity, triggered by statements about New Zealand and Australia being upside down. A discussion of the concept of density followed. They then returned to a discussion of another story read previously.

Excerpt 36 (March 16)

Mr. S.: What bird was in the Arctic?

Student: Tern

Mr. S.: How is that spelled?

Student: "t" "e" "r" "n"

During the next twenty minutes the next two stories in "New Practice Readers" were read. All of the stories in this reader have the same pattern: a "Getting Ready to Read" section followed by a short story to read, followed by a "Testing Yourself" section. The story included on the following page illustrates the kind of material used during these sessions.

One student was always selected to do the "Getting Ready to Read" section. Karen was selected during this class. She read orally all of the words in the "Say and Know" column correctly as well as the answers to the seven short exercises. During this reading, Mr. S. asked the meaning of the word "prey". "Is that when we pray to God?" Bob answered "no" and gave a correct explanation.

Getting Ready for the Next Story

- Draw a line under the right word or fill in the blank.
1. It means having a head in it. hawk's thick hooked
 2. It has the sound of the s in fact. bold fast eight
 3. It is a bird. eagle bear been
 4. It rhymes with say. bold prey toy
 5. It means the pointed end of something. tip top prey
 6. It rhymes with called. hooked tipped bold
 7. Write the word that golden comes from. _____

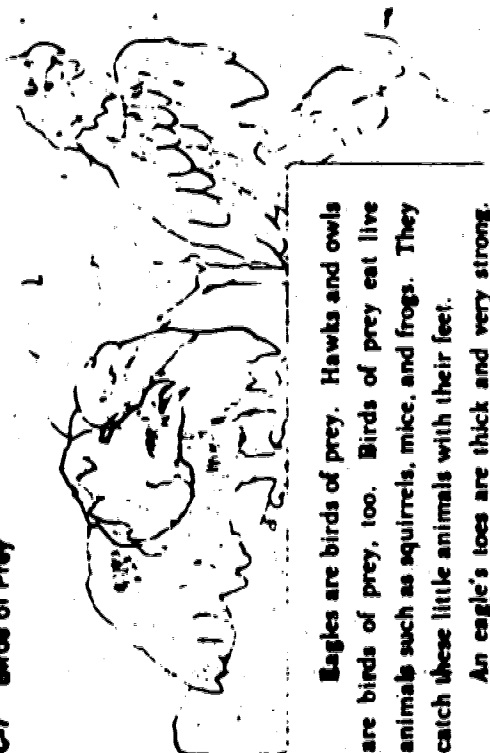
The toes and claws are used to take hold of the animals which the eagle catches and eats.

All eagles have hooked claws, and they all have large, strong bills. Still, there are many different kinds of eagles.

In our country, only two kinds of eagles are seen. They are the bald eagle and the golden eagle.

Eagles are very large birds. Their nests, too, are large. Some are as wide as two and a half meters (eight feet) across.

C-7 Birds of Prey



Eagles are birds of prey. Hawks and owls are birds of prey, too. Birds of prey eat live animals such as squirrels, mice, and frogs. They catch these little animals with their feet.

An eagle's toes are thick and very strong. All the toes are tipped with long, hooked claws.

C-7 Testing Yourself

NUMBER RIGHT _____

1. Birds that catch live things to eat are called birds of _____

Draw a line under the right answer.

2. From the story you can tell that
 - a. the bald eagle is a very small bird.
 - b. eagles are strong birds.
 - c. there are many kinds of eagles in this country.
3. The story as a whole is about
 - a. hawks.
 - b. the eagle.
 - c. eagles' nests.
 - d. what eagles eat.
4. The bald eagle is the biggest eagle. Yes No Does not say
5. Eagles' nests are larger than those of any other birds. Yes No Does not say
6. What word in line six of the story means having a sharp beak? _____

Students then took turns orally reading the paragraphs of the story. Bob read the first paragraph with no errors. However, he forgot to read the title of the story. Mr. S. noted this and asked him to read the title, noting that "it often gives us the sense of the story."

In the third sentence of the second paragraph, one of the students read "eagles catch" for "eagle catches". Mr. S. allowed her to finish the sentence and then said, "She made two errors in that sentence, Did anyone notice which ones they were?" One of the students responded "catches". Mr. S. then said "And she added a word that wasn't there. She said the claws." The student was then asked to reread the sentence.

In the third paragraph a student made two errors which Mr. S. corrected by providing the correct words. Two more errors were made in the fourth and fifth paragraphs to which Mr. S. responded by supplying the correct word for one and saying "whoops" for the other.

During the reading of the story, the meanings of "bill", "bald" and "meter" were discussed. Vocabulary was handled in the same way as it was in Mr. S.'s phonics classes.

Students took turns orally reading and answering the six questions in the Testing Yourself section. In the first question Lisa read "living" for "live" to which Mr. S. responded "whoops". Lisa again said "living" to which Mr. S. responded "Is there an |ing| there?" The second question was

followed by a series of questions asked by Mr. S.: Does it say they are strong birds? Where does it say? Can anyone read it? Why would it need strong legs? Why would it need a strong bill? Questions three and four were answered correctly. Lisa chose the response "yes" to question five when the correct response was "Does not say". Mr. S. then asked, "Does it say in the story? Where does it say?"

He then explained that they would get these kinds of questions on English tests and that "when you're doing them you have to be careful to see what it says in the story and not what you think". The next two stories were then assigned as homework.

Until this week, "New Practice Readers, Book B" had been the only material used during these periods. Three or four stories from this reader were usually completed in a class. At the end of the last class, Mr. S. had introduced the book "The Story of Canada" and from then on periods were equally divided between work in "New Practice Readers" and "The Story of Canada".

The students had read orally in the previous class the first page of "The Story of Canada" plus part of the second page. These sections were orally reread during this class, taking twenty-five minutes for two pages. During this time every oral reading error was corrected. Of the twelve corrected errors recorded, Mr. S. responded to eight of the errors with the statement, "not ___ but ___", or a similar statement indicating that an error had been made. Three of

the errors were hesitations by one student and the other students immediately provided her with the correct response. On one word, "descendants", Mr. S. anticipated that the student would not be able to identify it. He said, "Here comes a hard one. Who will be first to use their phonics to get it?" Bob got it.

During the reading of the two pages Mr. S. sometimes stopped to elaborate on the content of the text. On page five, in paragraph two, Mr. S. used the globe to explain the sentence "They came across a strip of land..." At the end of the last paragraph on page six, Mr. S. asked "Why would they call them Indians? It tells you in the last paragraph." Mr. S. then explained that there are two kinds of Indians, those from the country of India and those from North America.

Two vocabulary discussions occurred during the reading of these two pages, one on "customs" and one on "European". This discussion led to an explanation of the countries of Europe and their location on the map.

At the end of the period, the students returned the books to Mr. S. He ended the period by remarking that if they did the stories "New Practice Readers" in their notebooks, they would get through them more quickly and would have more time to spend on the "Canada Book". This comment was probably in response to student enthusiasm for this new book. During the class Bob had commented that he liked the book and other students had agreed. However, the

stories from "New Practice Readers" continued to be done in exactly the same way as they were during this period, and the process was never shortened, despite the fact that students now did the stories prior to class.

During the course of the study, this reading group completed 41 stories from "New Practice Readers" and 24 pages of "The Story of Canada".

USSR Periods

On Friday, February 23, Uninterrupted Sustained Silent Reading (USSR) was introduced into the program. For the remainder of the study the first half hour on Friday afternoon was set aside as a USSR period.

At the beginning of the first USSR period on February 23, Mrs. D. once again explained the format and purpose of the session to the students. She emphasized that this was a time to practise independently the skills they were learning in their program and that "learning to read on your own is a stage of growth in reading". She reminded them that the teachers would not be able to help them during the period and that, if they got into trouble with a word, they should "remember the little rule of read to the end of the line and see if you can figure out the word".

While the students had been told in advance that they were welcome to bring materials from home to read during this period, of the four subjects in the study, only Karen brought her own book to read. Bob and Lisa both chose a book from the bookcase at the back of the classroom. This pattern

continued throughout the study.

On all but one occasion, Karen read one of her paperback western novels during these periods. It appeared that she continued to read these books on her own throughout the intervening week. She reported that she read these books in the evening at home. On the one occasion on which she forgot her own book, she chose a short, high-interest, low-vocabulary book from the bookcase at the back of the room and completed it during the period.

While Karen continued to read books started during USSR periods throughout the following week, neither Lisa nor Bob ever read the books which they chose outside of a USSR period. For Lisa it was because she never really found a book that interested her enough to want to continue reading it.

Excerpt 37 (March 27)

E: Every Friday when you usually take one of those books off the shelf, have you ever found one that you liked that you later went back and got and finished.

Lisa: Um - There was one there that I went quite a ways through it but I didn't finish it - Some of them are okay, but others are not really interesting. You've got to look through em careful before you pick them out.

Excerpt 38 (April 2)

E: Have you found any books on the back shelf you like yet?

Lisa: I don't know. Like there was one last. During our half-hour reading I read it ("Adventure Awaits") - That one's interesting I think.

Lisa did read from this book, "Adventure Awaits", again during the next USSR period. This book is the grade four basal reader of the Ginn Basic Readers series; yet she seemed to prefer it to the high-interest, low-vocabulary materials also available on the shelf.

Bob followed a similar pattern. The book which he preferred to read during these periods was "Friends Far and Near", also from the Ginn Basic Reading series. In mid-March, Mrs. D. remarked that Bob always chose this book during USSR periods, and so, at the end of a USSR period, she took Bob to the back bookcase and showed him the "Jim Forest" series and suggested that he might prefer to read those books. This series is high-interest, low-vocabulary material about a forest ranger. On the same day, Mrs. D. also suggested books for other students. This occasion was the only time during the study that any of the teachers was observed suggesting reading materials to Karen, Lisa, or Bob.

During the next USSR period, Bob read one of the books Mrs. D. had suggested. However, he still preferred the old reader and returned to it in the next session.

Excerpt 39 (March 27)

E: Those books from the back shelf that you take on Friday for that silent reading period, have you ever read those at any other time during the week?

Bob: No ... I read two or one and a half on Friday.

E: ... Do you like those books("Jim Forest"), are they interesting or

Bob: They're interesting , but they're pretty easy to read eh. Like uh, they're repeated. And the other book that I choose, I chose it first, I forget the name of that book (E: Friends Far and Near) Yeh. That was more - richer in words.

E: ... That's the first time you haven't read Friends Far and Near isn't it? (Bob: Yeh) You've always read the other one. Did you finish that other book totally.

Bob: No. See I was suggested to read them because - uh - of the, I guess she wanted me to stop using my finger. I don't use that any more. But I like the other one better.

E: Those are the "Jim Forest" books.

Bob: Yeh, the "Jim Forest" books.

E: But you really prefer the other book do you?

Bob: It really doesn't matter - But the other book is more a book, of a book like I was, when I was in school. They have little stories all the way through and each story has a new word, a couple of new words. But this Jim Forest book, it's one word I think in the whole book. (laughed)

E. Self-Directed Activities

While "homework" such as phonics sheets or stories from "New Practice Readers" was often assigned during the study, students usually completed this work during spare time throughout the day. However, the three subjects, Karen, Lisa and Bob, all did unassigned "homework" in the evenings. These other "homework" activities were self-selected with no guidance from the teachers and varied greatly among the subjects. The teachers showed no awareness that these activities were taking place.

Early in the study Bob decided, probably partly because of the emphasis on individualized periods, that he was to take a large part of the responsibility for his learning in the program, as he said "... most of the teaching here is your ability to learn on your own." He also decided, early in the study, that completing a large number of individualized sheets was the way "to get ahead" in the program. Therefore, all of his reading activities outside of the classroom consisted of doing sight word, or writing worksheets, or "getting ahead" on his stories for his group reading class.

Excerpt 40 (Feb. 19)

E: What kind of homework did you do?

Bob: My spelling and uh copying a story (writing worksheet).

E: Did they give you homework or did you just decide to do it.

Bob: Decided to do it. Well you got to do it to keep up.

Excerpt 41 (Feb. 23)

Bob: (in response to discussing his spelling and how he practises it) ... At home it's mostly getting my phonics work done and some English done so when they come around to check I got it all done and I can go on. When I started (sight words) I started from 1 - 12, and now I'm from 1 - 60 - two weeks. But I feel that I'm not - I'm not - I wanta go faster.

Excerpt 42 (March 16)

E: What kind of work have you been doing at home?

Bob: In my writing changing questions or statements into questions. And uh, reading my reading book.

E: Uh, your book that looks like this one? (New Practice Readers)

Bob: Yeh ... I went way ahead. I went four stories ahead.

E: Oh. You did all those in your notebook too? (Bob: Yeh) You wrote them out?

Bob: And uh, I went way ahead in my writing. And uh, my I-W(sight) words. I've got the last, I think it's nine or ten words to do. I've got the first page to 98 and then I'll be finished.

Bob made many plans to discipline himself into a routine to do work at home at night. He came up with various plans including staying after class and working in the library. He succeeded only in working in spurts. His life went through many personal highs and lows during the study, and these were reflected in his night-time study habits. When he was on a high and feeling good about himself and his learning, he would work on individualized sheets for two or three hours in the evening.

Despite the fact that Bob did no outside book reading, other than work in New Practice Readers, he did show an interest in the dictionary as a way to help himself with his spelling. In this excerpt he reveals how he discovered how to use it.

Excerpt 43 (Feb. 23)

E: So you already know how to use a dictionary, do you?

Bob: Well I use the dictionary just like a telephone book. They're all in alphabetical order but - there are different ways of saying "a" and signs they have there I'm not familiar with.

E: So you're really teaching yourself how to use a

dictionary. Or has someone ever shown you before?

Bob: No, but I knew it was in alphabetical order and I was scared to try it because, well, what am I gonna look up why you know. So I did it myself.

Karen also did some self-teaching. She decided that she would like to learn to type and went to the library to borrow a book on typing.

Excerpt 44 (March 27)

E: You always read your own books in USSR don't you?
(Karen: Uh-hmm) Have you ever used the library here?

Karen: I used it once.

E: What did you go to

Karen: I just got a book about typing.

E: ... How did you find the book when you went? Did one of the librarians help you or did you find it yourself?

Karen: I found it myself. I just look under "t" and I found it.

E: But had you ever been in a library before that?

Karen: No, not before that.

E: So, how did you know what to do.

Karen: Well I just went and looked where, I just looked around and went the right place.

E: So you just, but there's two kinds of boxes aren't there? How did you know which one to look under.

Karen: You know where - it goes by numbers eh. I found my numbers.

E: Very good. Have the teachers here ever taken you on a tour of the library.

Karen: No. But they told me you can look in a dictionary, but I didn't.

E: Can look in a dictionary?

Karen: Or something. You look in something and then you know exactly where the book is.

While all of the teachers were observed suggesting the use of the library to students as a source of reading materials, none of the teachers ever took a student or a group of students to the library to show them how to use it.

Like Bob, Karen also spent time in the evenings working on individualized sheets. She spent one half hour on writing sheets three or four nights a week because she wanted "to get ahead". However, unlike Bob she also read the newspaper every day and usually read a magazine such as "True Story" or reread part of one of her western books as well. During the period of the study she read each of the installments of Margaret Trudeau's book in the local newspaper and followed the federal election news "about Joe and Pierre". Reading continued to be a substitute for boredom as it had been in the past despite access to television now. Some nights she would read for two hours because she "had nothing to do."

Excerpt 45 (March 16)

E: ... do you spend the same amount of time (reading) or does it vary?

Karen: About the same much time. It depends what I'm doing. If you have something to do then quit.

Unlike Bob and Karen, Lisa never did individualized sheets at home. Even assigned stories and phonics sheets were completed during noon hours or after USSR periods on Friday afternoons. Lisa did, however, do "homework".

During the first month of the study, Lisa practised oral reading with a friend in the evenings. She abandoned this practice in late March, perhaps because of the ending of the friendship. During late March and April she periodically worked on an old school workbook she had on building vocabulary, completing four or five pages in an evening. On one occasion she took a book out of the library on a nurse's aide, her job goal. Unlike Karen, she asked the librarian for assistance in locating the book.

Every evening Lisa read the horoscope and farm advertisements in the newspaper. During a session at the end of the study, Lisa showed that she was skilled in skimming the farm ads for horses and hay for sale. Other sections of the newspaper were given only a glance. She skimmed the pictures and captions, rarely stopping to read an actual article.

Although Lisa believed that "the more reading you do the better you get", she needed external motivation to read and rarely read lengthy passages outside of a structured classroom situation. She was aware of this need for practise in reading. She liked her reading group classes because they provided this practise.

Excerpt 46 (May 9)

E: And the only other period you have is Friday afternoons, when you have time to read to yourself. Do you like those periods?

Lisa: Uh - like I like reading by myself but I'd rather read out loud something that interests everybody or something like that. I'm not one that can sit down and

read a book. I never did have. Unless I have to do something you know. I can do it once in awhile but if I don't really have to do it I don't. So it helps me when I read out loud because I have to do it - even if you're not willing to do it you can do it.

F. Subjects' Reading Strategies During The Study

This section presents the strategies inferred from the subjects' performances during reading strategy sessions.

Since a subject's performance on a task may be influenced by his perception of the task, the subjects' perceptions of the tasks are presented prior to the data on their reading strategies.

Subjects' Perceptions of the Tasks

At the conclusion of the study an attempt was made to assess the subjects' perceptions of the tasks used to infer their reading strategies. By this time, Bob had terminated the program. Attempts to arrange a final session with him were unsuccessful.

Karen viewed the oral reading task as a measure of her speed of reading; Lisa viewed it as a measure of her performance as an oral reader.

Excerpt 47 (May 9)

E: Why do you think I asked you to read out loud for me at each of these times?

Karen: You tape me and then you see how fast I read.

Excerpt 48 (May 9)

E: Why do you think I asked you to read out loud for me at these sessions?

Lisa: Because you wanta see if I'm uh progressing. Like in reading aloud some people have a hard time reading out loud. And they can read to theirself good.

In at least one respect, Lisa's performance during these oral reading sessions was different from what she would do reading by herself at home.

Excerpt 49 (May 9)

E: Was there anything that you would do different because you were reading it out loud that you wouldn't do if you were just reading it to yourself at home?

Lisa: I used my finger to read it with. Make sure I stay on the right line you know or like if I have trouble with a word I always put my finger on it.

E: If you were reading to yourself at home you wouldn't do that?

Lisa: No. I'd just think how to , how to look at the right word. Separate it or something.

To Karen, at the beginning of the study oral reading was an unfamiliar task. As was mentioned earlier, she had to teach herself the correspondence program after completing the grade one program and so rarely read aloud to anyone. Neither did she read aloud when reading by herself.

Excerpt 50 (May 9)

E: When you read orally for me, out loud, was that the way you would read if you were by yourself?

Karen: No. I would read to myself.

E: So you would never read out loud by yourself.

Karen: No.

Lisa viewed the recall tasks as a check of her understanding of the story and acknowledged that she used rereading as a memory strategy during these tasks.

Excerpt 51 (May 9)

E: What did you think I wanted you to tell me when I asked you to tell me about the story?

Lisa: Whatever I could. Just whatever I remembered about it or whatever I understood.

E: Oh. So when you were reading the stories did you do anything special when you were reading them so that you would be

Lisa: Able to tell you more? Yeh, I went back and checked to see if I had forgotten any names or you know just little parts.

While Lisa openly used rereading as a strategy during recall tasks, Bob felt that it was "cheating" to reread. On one occasion near the end of the study it was evident that he had reread the beginning of the passage.

Excerpt 52 (April 20)

E: I noticed at the very end you went back and looked at the beginning a little? Did you?

Bob: Cheated, yeh(laughed) I went back to check on Kennedy Airport?

Karen also viewed the unaided recalls as checks on her understanding of the story, but did not indicate use of any deliberate strategies to aid in remembering the story. Perhaps she is unaware of potential memory strategies, she is unaware of strategies which she is using, or she is unable to verbalize what she does.

Excerpt 53 (May 9)

E: What did you think I was looking for when I asked you to tell me the story?

Karen: (long pause) To see if I understood the story. I have to remember it to tell somebody what happened.

E: Ok So when you were reading did you ever do anything special to try to remember the story?

Karen: (very long pause)

E: Or that you're aware of?

Karen: No.

However, she had had experience with telling stories to her brothers and sisters.

Excerpt 54 (March 4)

E: When you were doing correspondence at home did your mother or anyone ever sit down and discuss stories with you, or talk about what you'd read? In other words have you ever done that before?(tell the story back)

Karen: No - my - my brothers and sisters, I used to tell them what I read about those books. What the stories were about.

E: The western books?

Karen: Yeh.

E: Had they read the same books? So would you

Karen: No, they couldn't read em. Only I could read em. They were too hard for them. So they would ask me what the stories were about.

All of the subjects indicated that they had found the narrative passages easier to read than the informational

passages. ' ' During the study Bob and Lisa in informal conversations on separate occasions had both initiated discussions on differences between the two types of passages used in the reading sessions. These discussions were later followed up in recording sessions.

Excerpt 55 (March 2)

E: Why did you find them (narrative passages) easier to read?

Lisa: It was somethin that could happen just about every day. Like an everyday thing.

Excerpt 56 (March 19)

E: You mentioned you find these ones (narrative passages) easier to read than these ones (informational passages)

Bob: Yeh, well you can tell, almost, tell the story, what's happening before you're reading it.

E: So it makes it easier?

Bob: Well you sort of know what's happening. Right. This here about making soap. I never knew how they made soap.

Karen, in response to direct questioning during the study, also indicated that she had found the narrative passages easier to read than the informational passages. However, she found it difficult to articulate the differences. On three different occasions, she was asked why she found the narrative passages easier. Her response was always the same:

' ' Yet, in each session, the informational passages read were always at a lower grade level, as measured by a readability formula, than the narrative passages, or at the same grade level.

Excerpt 57 (April 20)

E: Do you have any idea what the difference between the stories in this book are and the ones in these books are?(very long pause) Like you find these ones (narrative) easier I know.(Karen: Yeh) Do you have any idea what it is about them that makes them easier?

Karen: Well, they explain them - They explain it really good.

Strategies Inferred from Oral Reading Tasks

As described in chapter III, the subject read orally a narrative and an informational passage at each of the sessions with the researcher. These passages ranged in difficulty from grade three to grade seven as measured by the Fry Readability Formula. Bob and Lisa always read the same passages, and from the middle of the study until the end, Karen did as well.

Karen consistently read every passage with a high degree of accuracy, always above 95 percent. Except for one passage, a grade six passage, Lisa read all passages with an accuracy level above 92 percent. Bob, however, was much more inconsistent. His accuracy levels ranged from 82 percent to 96 percent. Grade level was not a good predictor of the accuracy with which Bob would read a passage. On one occasion he read two grade five informational passages, one with 82 percent accuracy and the other with 93.5 percent accuracy. On another occasion, after reading a grade seven level narrative passage with 93.5 percent accuracy, he read a grade six level narrative passage with 88 percent accuracy. For the purposes of coding oral reading errors,

two passages, one passage which Bob read with an accuracy of 82 percent and one passage which Lisa read with an accuracy of 88 percent were omitted because their behaviour when reading these passages clearly indicated that these passages were at frustration level for them. The researcher felt that inferences drawn from an analysis of errors on these passages might not be representative of their reading strategies.

The oral reading strategies identified for each of the subjects during the first session of the study remained largely unchanged throughout the study, although minor changes or hints of change were evident toward the end of the study. Data supportive of subject-reported strategies, such as Bob's use of context, were also evident.

Lisa: As with the categorization of data from Lisa's first oral reading session, the categorization of her oral reading errors obtained from the remaining sessions of the study indicated that while she relied on both contextual and graphic cues when reading, she relied more on graphic cues than contextual cues. While 70 percent of her errors on the narrative passages and 77 percent of her errors on the informational passages were categorized as having high or medium graphic similarity, only 30 of her errors on narrative and 37 percent of her errors on informational passages were categorized as contextually appropriate at the passage level.

However, there was evidence in the categorization of Lisa's errors that she predicted words based on meaning and attempted to monitor her oral productions for meaning. Fifty-two percent of her errors on the narrative passages and 30 percent of her errors on the informational passages were categorized as partially contextually appropriate²⁰ and all but one of these errors was consistent with the prior portion of the text, e.g. for "One truck was loaded with..." Lisa read "One truck was located with..."

Lisa corrected 72 percent of these partially contextually acceptable errors. Further, 70 percent of all corrections involved errors which had been categorized as having partial or no contextual acceptability, which indicated that she monitored her oral productions for meaning.

A self-report following the silent reading of a narrative passage provided further evidence that Lisa used meaning to predict words.

Excerpt 58 (April 18)

E: That story (narrative, Rescue in a Burning Building) was at a higher level. Were there some words that caused you problems?

Lisa: (noted some, all of which she had correctly

²⁰ These differences on the two types of passages in percentages of errors categorized as partially consistent, along with Lisa's self-report that she found the narrative passages easier to read than the informational passages suggest that the structure and content of the narrative passages may have aided Lisa in using semantic cues when reading. However, the data provided only weak support for this conclusion. These differences were not evident in the categorization of errors as contextually appropriate.

identified)

E: Good. When you were reading how did you figure out those words finally?

Lisa: I just uh - how, what did I do? I just looked at em and looked at the sentence and just tried to make it out I guess. (she continued to look for words and came to "gap") I looked at that word twice. gap yeh.

E: Why was gap a problem too?

Lisa: It just didn't belong to that - If they'd put space or something. And I looked again, oh gap.

An analysis of Lisa's attempts on words suggested that she had continued to rely primarily on the strategy which she had used during the first session: attempting to chunk the word from left to right, selecting known letter-clusters and associating appropriate sound units to these clusters, and attempting to synthesize these units into a word-like structure e.g., "but-ton, button" for "button", "en-rich, enriches" for "enriches", "vol-un-teers, volunteers" for "volunteers" and "sub-stance, substance" for "substance".

Throughout the study there was evidence to indicate that Lisa was becoming proficient at analysing two-syllable words, and that she was developing flexibility in associating sounds with letters and letter-clusters. Lisa's attempts on two-syllable words were almost always successful. It was evident that she had generalized syllabication rules, e.g. she chunked "button" as "but-ton" but chunked "minor" as "mi-nor" and "human" as "hu-man". She also showed flexibility in her chunking of the word, in being willing to rechunk, and in associating vowel sounds to

vowels within chunked units e.g., in analysing "basin" she tried "bas-in" and then, successfully, "ba-sin"; in analysing "Ramos", she first tried "Ram-os" and then "Ra-mos"; in analysing "patient" she tried "pat-ent" and then "pa-tent". Further evidence of increased flexibility with vowels occurred in her attempts on "deposits" and "appeared". With "deposits" she tried "de-pos-its" twice and then tried "de-pos-its"; with "appeared" she first tried "ap-paired" and then tried "ap-peared". This increased flexibility was probably due to increased confidence with vowel sounds, brought about through her work on syllabication in phonics classes.

Excerpt 59 (April 2)

E: How do you think it's (reading) improving?

Lisa: Um Getting to learn how to pronounce my words, how to, how to break em up, like the right way. Maybe the vowels? - Like sometimes I, usually I used to sound, like for the short ones they're usually long ones, get them mixed up. Now I'm getting to know them better.

There was some slight evidence that, while Lisa was able to identify CVC patterns and common affixes in analysing words longer than two-syllables, as she did with "deposits" and "volunteers", she was unable to cope with longer multisyllabic words which did not readily chunk into such units. During oral reading, she could not analyse "similar" and tried to form a word by selecting the consonant letters and the "or" pattern, e.g. "s-m, smolar". During the retesting on the WRAT, after long pauses, she was

unwilling to try "luxurious" or "aeronautic",²¹ and gave up after trying "part-ise" for "participate".

During the last two sessions, Lisa made fewer overt attempts on words read in passages. However, her overt attempts on words during these sessions suggested that she was beginning to make more of an attempt to integrate graphic and contextual cues when reading. Many words were correctly identified after long pauses, during which time no audible attempts to analyse the word could be detected, e.g. "specialized", "represent" "served", "Asia", "wading". At the end of the study, when again asked for strategies she could use to identify unknown words, she indicated that she would first "read on" to sample more semantic cues, and if that failed she would probably try word analysis. It may be that she used this strategy during the long pauses.

Excerpt 60 (May 9)

E: If you were reading and came to a word that you didn't know right away, how could you figure out what the word is?

Lisa: Read the rest of the sentence or try to divide it up. First I'd read the first like go along for the best of the sentence. If I couldn't make it out from there I'd try to break it up and then I'd probably get it.

Lisa did not consistently use the strategy which she reported in excerpt 60. In many of her overt attempts on words throughout the study, she used the reverse strategy: she first carefully analysed all of the graphic information,

²¹ In the testing session at the beginning of the study she had attempted these words on the WRAT.

selected cues based on the patterns and rules which she had generalized, and attempted to synthesize these selected cues into a real word; she then tested this word against future sampling of semantic cues and corrected or attempted to correct it when the response was inconsistent with the text.

Excerpt 61 (March 19)

Text: The shell bursts and the butterfly pulls itself out.

Lisa: The shell burr - burr-st - burr-st. The shell breasts? and the - bursts! - The shell bursts

During an interview in April, she indicated that the strategy which she used depended partly upon the perceived difficulty of the problem word.

Excerpt 62 (April 18)

E: (Lisa had referred to going on and reading the rest of the sentence to try to identify "bleeding") Do you often do that when you're reading?

Lisa: Yeh, I always go, like if I can't read the word I go on first and then try to fit it all in ... like if it's really easy usually I can get it if I just try a little harder you know. But if I can't get it at all I just try to read the rest.

During oral reading sessions toward the end of the study, Lisa's reading became less hesitant and subvocalization on silent reading passages lessened, providing support to the hypothesis that she was beginning to rely less strongly on careful analysis of the graphic information and was perhaps beginning to be more willing to take chances.

Bob: Like Lisa, Bob relied on prediction to identify words. As with Lisa, Bob's errors which had been categorized as partially contextually acceptable were consistent with the prior portion of the text. And like Lisa, his correction pattern also indicated that he monitored carefully for meaning, as was also evident in the first session with him. As in the first session, he corrected only those errors which were inconsistent with the text. He corrected 60 percent of the 30 percent of his errors which were categorized as partially contextually acceptable, while he allowed the 37 percent of his errors categorized as contextually appropriate to go uncorrected.

During the oral reading sessions of the study, overt evidence supported the inference drawn from the categorization of his oral reading errors: that he predicted words based on meaning when he was reading, and that he carefully monitored his oral productions for semantic consistency.

Excerpt 63 (February 26)

Text: Not one of the ten boys has been arrested.

Bob: Not one of the ten boys has been (pause). That's captured - aray - (read rest of story) What was that word? I knew it meant apprehended.

Excerpt 64 (April 20)

Text: The farmers, wading in the water

Bob: The farmers(long pause) - The farmers weeding in the water, wading in the water.

Excerpt 65 (March 16)

Text: Mrs. Gilbert handed the baby to Mary Anne.

Bob: Mrs. Gilbert held the baby to Mary Anne. Wait a minute. Mrs. Gilbert handed the baby to Mary Anne.

On one occasion he corrected a word after he had finished reading and was retelling the story.

Excerpt 66 (March 16)

Text: When the weather turns warm something wonderful happens

Bob: When the winter turns - When the water turns warm (finished the paragraph and is retelling the story) When the warm wa - uh weather. I said water. That word was weather.

Bob was aware that he used the context of the story to aid in his reading and deliberately helped himself use the strategy by becoming involved in the story.

Excerpt 67 (February 26)

Bob: (at the end of a lengthy discussion of what he means by "sound it out") ... a lot of my words like "ash" - well that word just come to me. I don't know how come I guess it fit in eh - a lot of the words would just fit in, like "important - that word just fell in to me. Well it fits in with the story. So these stories(narrative passages) seem to be interesting to me, even if they're not I try to make them interesting and it fits into place. "

Excerpt 68 (April 2)

E: What about reading groups. Do you think there's anything you're doing there that's helping your reading?

Bob: ... and as you're reading aloud and you come to a

 " Note how he seemed almost surprised at how well this strategy worked. He is amazed at what he can read when he "gets into it".

word and I know I don't know it, but I'll say that word because it fits in.

While the categorization profile of Bob's errors remained the same throughout the study, the analysis of his overt attempts on words showed a gradual change in his intraword analysis strategies. He appeared to become more systematic in his attempts to analyse graphic information within words. By the end of the study, there was some evidence to suggest that he was beginning to select units larger than a single letter when analysing words, and that he had generalized sound associations for some vowels and some common letter clusters.

During the oral reading session in February, Bob used the same strategy in analysing graphic information as he had during the first session in January. He appeared to select some or all of the consonant letters and associate appropriate sounds to these letters, and synthesize these into a real word e.g., "sharp" for "spread", "part" for "pair", "part" for "plant". Apart from a long pause that indicated he was attempting to analyse a word, little overt evidence occurred to show how he was selecting graphic cues, and often he correctly identified the word after a long pause.

On two occasions, with "arrested" (see excerpt 63) and with "purple" it was evident that he attended to some of the graphic information. With each of these attempts there was evidence to suggest that he constantly aimed for semantic

consistency when reading.

Excerpt 69 (February 26)

Text: Flies land on the leaf to eat a purple juice that they find there.

Bob: Flies land on the leaf to eat a (very long pause) |p| - pall? - juice that they find there. Don't know that word.

During the session in mid-March, it was evident that, while Bob still often used the graphic analysis strategy described earlier, he was also beginning to try to be more consistent in analysing graphic cues. There was much evidence to suggest that he was beginning to attend carefully to the beginnings of words, e.g. for "caterpillar" he first tried "c-c", for "change" he first tried "choo" for "butterfly" he first tried "but" and for "underneath" he first tried "under". He was successful in identifying all of the above words except "underneath".

Bob's attempts on "underneath" and "butterfly" were the first hints that he was beginning to select units larger than single letters in word analysis. Two further examples of this strategy occurred during this session: "Gil-Gilbin" for "Gilbert" and "us (followed by mumbling) for "useless effort".

During the last session in April it was evident that Bob was becoming more systematic in his analysis of graphic information. Overt evidence indicated that he selected consonant letters in the order of occurrence in the target

word and that he attempted to produce a real word which preserved this order of occurrence, e.g. "b-r, bars" for "beards", "st - rr, stars, steers" for "steers". Real word substitutions, pronounced after pauses on words, always preserved the order of occurrence of the consonant letters selected from the target word, e.g. "weeding" for "wading", "blending" for "bleeding", "badging" for "bandage".

Evidence during this session strongly suggested that Bob had generalized some letter-clusters and some vowel sound associations, and that this knowledge was helping him to identify larger orthographic units within words. While he did select "ar" from the middle of a word, "bars" for "beards", and "or" from the end of a word, "manor" for "minor", he was usually only able to identify these common letter-clusters at the beginnings of words, e.g. "fin" for "finally", "volun(mumbled and went on) for "volunteers". While he was unable to identify "volunteers" and did not produce a real word, on other attempts he identified the beginning of the word and then tried to produce a real word beginning with the same letter-cluster, e.g. "ap, applicants" for "appeared", "San, Santa Barbra" for San Bernardino" and the following chain for "unbelievable".

Excerpt 70 (April 20)

Text: "It was unbelievable" said police officer Joe Ramos.

Bob: It was un - possi - in - visi - invisible - unbelievable!

As is evident in the above examples, Bob appeared to have generalized some C(VC) patterns. He correctly identified "san", "ap", "vol" and "un". His attempts on the word "chief" provided further support for the inference that he had generalized some CVC patterns. He first produced |shif| and then |shef|.

While it is evident that Bob was beginning to expand his knowledge of graphophonic relationships and concurrently attempting to apply this knowledge systematically in analysing graphic information, evidence during the last session suggested that he was not yet at the stage where he was willing to trust his ability to use graphic information correctly. He would override a correct response based on selection of graphic cues if it was not consistent with his world knowledge structure.

During the last session, he read two informational passages, both of which had a Fry readability grade level of five. He read the second passage, a passage which describes growing rice in Asia, with an accuracy level of 93.5 percent. He read the first passage, a passage which describes the historical significance of the red and white stripes on barber poles, with an accuracy of 82 percent. As is evident in the excerpt below, the concept of "bleeding people" embodied in the passage on barber poles caused him great problems. At one point he identified the word "bleeding" correctly and then changed it. Immediately following the reading of the passage he asked, "What was

that word there?(bleeding)", and indicated that he could not make sense of the passage.

Excerpt 71 (April 20)

Text: Their main work as doctors was bleeding people. At that time it was believed that bleeding helped cure the sick. The white stripes on the pole represent the bandage with which the barber wrapped the patient after bleeding him. The red stripes represent the blood. Long ago a basin hung beneath the striped pole.

Bob: Their main work as doctors were - building building? - people. At this time it was believed that - bleeding(said lightly) - blending helped cared the sick. The white stripes on the pole represent the be - began - branding - which with which the barber wrapped the ooooooh after building him. The red stripe represent the blood. blood! (stops and looks up and shakes his head)

Karen: While data on oral reading strategies of Bob and Lisa were rich with audible attempts on words and self-reports on strategies used during oral reading sessions, little data of a similar nature were obtained on Karen. Karen read with a high degree of accuracy, making few audible attempts on words and rarely commenting on her oral reading strategies. The categorization of her errors suggested that, as was evident in the first session, she relied strongly on graphic cues when reading.

Sixty-seven percent of Karen's errors were categorized as having high or medium graphic similarity. Use of graphic cues was consistent on both types of passages. While 37 deliberate attempts to analyse words were recorded, all but nine of these were long pauses followed by the pronunciation of a word or word-like structure. This strategy produced the

correct response 61 percent of the time. Interestingly, the number of nonsense words produced during oral reading of the passages decreased. In the first session 53 percent of Karen's errors on the passages were recorded as nonsense words; only 24 percent of her errors during the remainder of the study were nonsense words, e.g. "mernor" for "minor", "declay" for "decay" "stampded" for "stampeded", "ecord" for "secured". Such errors were equally distributed over narrative and informational passages.

There were only seven attempts where it was evident that Karen had chunked the word into letter-clusters. These attempts provided no new insights into the content of her graphophonic knowledge structure. Again she immediately pronounced common prefixes, e.g. "ex-plosion", "en-trance", "en-rich" "dis-tance", "re-present (pronounced like 'gift') and selected and associated appropriate sound units to common letter clusters in "Sergeant", "Ser-gant" and "ovipositor", "o-vi-postor". Like Lisa, on the retesting of the WRAT, she deliberately skipped words on which audible attempts had been evident in the first session.

A comparison of the categorization of Karen's errors between the narrative and informational passages provided support for the hypothesis, inferred from the data of the first reading session, that Karen's lack of reliance on semantic cues was due in part to a lack of sufficient background knowledge to enable her to use semantic cues effectively. Fifty-one percent of her errors on the

narrative passages were contextually acceptable errors which occurred in the flow of reading, as compared to 30 percent of her errors on informational passages. It is hypothesized that the content of the narrative passages, the everyday action events, was more consistent with her knowledge of the world than was the content of the informational passages. As a result she was better able to make use of semantic cues when reading the narrative passages. It is further suspected that, through her reading of the western novel, Karen developed a story structure for narratives and that this story structure also aided her in using semantic cues when reading these passages. ²³ Karen's unaided recalls provide further support for this generalization. These data will be discussed in the section on unaided recalls.

There was some evidence in Karen's errors on both narrative and informational passages, in addition to her self-report (see excerpt 21) that at times Karen used semantic cues to predict words. While she made only 13 errors which were categorized as partially contextually acceptable, all of these errors were consistent with the prior portion of the sentence in which they were contained, indicating that they were based on prediction.

On one occasion Karen's response indicated that she had used prediction to identify a word. Further questioning as well as a knowledge of Karen's background suggested to the

²³ Karen had indicated that she had found the narrative passages easier than the informational passages because "they explain better".

researcher that the prediction was made possible by her knowledge of the topic.

Excerpt 72 (May 10)

E: (Karen had paused before the word "condition" in reference to the condition of the soil) (had just finished discussing "sounding out" as a strategy) Do you remember how you sounded out that one?(condition)

Karen: Yeh, proper. Cause it said proper so I thought it would be condition.

E: Did you know that about earthworms?

Karen: Yeh. My dad had a farm there and they always used to come up when it's raining.

As indicated in the description of Karen's background, she was expected to take care of her father's garden. Having soil in proper condition would be a familiar concept to her. While the percentages of Karen's errors categorized as contextually appropriate and the nature of her errors categorized as partially contextually appropriate indicated that she did at times, make effective use of semantic cues when reading, the small number of partially contextually appropriate errors and her correction behavior indicated that she still relied more strongly on graphic cues rather than semantic cues when reading. She corrected only three of the 13 errors which were categorized as partially textually consistent. Further, she corrected 13 of her 27 errors which were categorized as contextually appropriate. These data suggested that she monitored her oral productions for graphic similarity rather than semantic consistency. It is

hypothesized that Karen's strategy of relying strongly on graphic cues when reading developed not only as a result of an emphasis on word identification skills in the correspondence program which she took but also as a result of her limited world knowledge. This limited world knowledge inhibited her ability to use semantic cues to predict and monitor her reading and thus forced her to rely on graphic cues when reading.

As was mentioned in the discussion of Karen's first oral reading session, it was suspected that she sometimes assigned pronunciations to words for which she had no meaning, and sometimes pronounced words correctly for which she had an inadequate meaning representation. Twice during the sessions with the researcher during the study she again gave unusual pronunciations to words, e.g. she pronounced "represent" as |represent| (like "gift") and "entrance" as "entrance". The researcher questioned Karen about the meanings of these words at the end of these sessions.

Excerpt 73 (April 20)

E: Do you know what represent means? (used her pronunciation)

Karen: To redo something.

E: What would it mean in (showed her the sentence in the text and read it to her), "The white stripes on the pole represent the bandage with which the barber wrapped the patient after bleeding him."

Karen: (long pause) I don't know.

Excerpt 74 (March 27)

E: Do you know what entrance(used correct pronunciation)
- what an entrance is?

Karen: entrance - well to go in there - you enter,
right?

Further attempts were made to assess informally Karen's level of understanding of some of the words which she correctly identified in oral reading sessions. Following the oral reading of passages, Karen was sometimes asked about the meanings of some of the words which she had pronounced correctly or nearly correctly. Some responses indicated a vague understanding of the words. At other times she was unable to explain the meaning of the word. Karen's inability and/or reluctance to express herself or to elaborate on answers are evident in these excerpts.

Excerpt 75 (March 27)

E: What does permanent mean?

Karen: full time like

E: What does desert' mean(she had used the correct pronunciation within the context of the passage)

Karen: (long pause) You can desert somebody like.

E: What would it mean if you desert somebody? I think you read something here "sooner or later they desert their homes" (showed it to her in the text while reading it). What does that mean?

Karen: (no response, very long pause)

E: They're talking about the crickets.

Karen: No

E: Don't know?

Karen: No

Excerpt 76 (April 20)

E: Do you know what incredible means?

Karen: Incredible. Yeh, like uh it's really incredible. Like something funny or

E: Ok. Could you give me an example of something that would be incredible?

Karen: Like a monster.

E: Do you know what panic means?

Karen: To cry(said quickly)

E: What about calm. It said the eight teachers aboard tried to calm them.

Karen: To try to talk them into - not to cry.

Strategies Inferred from Unaided Recalls

As described in chapter III, students silently read narrative and informational passages during each session and were asked to give oral recalls of the passages. During the study the three subjects read informational passages at the grade three and four levels, as measured by the Fry Readability Formula, and narrative passages at the grade three to five levels as measured by the same formula. All students read the same passages.

Karen: While Karen's recalls on informational passages continued to contain vague statements and/or a few specific details about the content of the passage, as they had during the first session, her recalls of narrative passages were much longer and more detailed. These recalls always

contained a correctly sequenced listing of many of the main episodes of the story. Supporting details were rarely supplied, and she often left out the ending or a portion of the story.

This difference in the recalls of narrative and informational passages provides partial support for the hypothesis, drawn from the analysis of Karen's oral reading errors, that Karen had developed a story structure for reading narrative materials. However, the omissions in her recalls of significant events in the stories, particularly the conclusion, suggests that her story structure is not well developed.

In a session near the end of the study, The researcher used a questioning strategy to determine if Karen's performance on recall tasks was due to her perception of the task, i.e. did she ignore certain aspects of the story in her recalls because she considered it unnecessary to tell them, or was it due to problems in storage and/or retrieval of those omitted details of the story. The results of the questioning strategy suggested that the latter explanation of the phenomena was the more plausible one.

Excerpt 77 (April 20)

Text:(Informational Passage, "Poisons in the Woods")Poison ivy and poison oak grow in many sections of our country. There is a great deal of poison oak found on the West Coast. It is found in the southern and central states as well.

On the leaves of both plants is an oil that contains the poison. If part of your body touches the plants, the oil sticks to your skin. The poison makes your skin itch.

Sometimes, just the smoke from a burning plant can bother you.

Rubbing or scratching the poisoned places helps grind the poison oil into the skin. You need plenty of water and good strong laundry soap to remove the oil.

It is good to know about these poison plants. It is also good to know that some plants can help stop the itching. The juice from jewelweed or sweet ferns can be very soothing. It seems that we can find sickness and cures in the same forest!

Karen's Recall: It's about trees that uh you poison, the leaves if you touch them you get it on your skin. You get itchy.

E: What is it on the leaves that actually makes you itch?

Karen: Kind of liquid stuff.

E: How can you get rid of the poison if you get it on your skin?

Karen: (long pause)

E: Do you remember?

Karen: Special kind of stuff it said there leaves or something.

E: Do you remember what plants if said could help soothe the itching?

Karen: (No response)

E: Do you know another way besides putting some kind or leaves or something off some kind of plant? Do you remember another way that they said you could get rid of the poison?

Karen: (No response)

E: What do you think they meant by "It seems that we can find sickness and cures in the same forest?"

Karen: Well there's different kind of plants that can cure.

Text:(Narrative Passage, "All's Well That Ends Well")Often a bad dream can have a happy ending. And that's what happened to a beautiful black girl -

Patricia Chance.

Last Saturday evening Patricia was getting ready to take off from Kennedy Airport. She was flying to Spain. She had won a scholarship to study there.

Miss Chance, 21, had spent many hours making her own clothes and saving pennies to buy shoes, books, and other things she needed.

She and a friend stopped a cab at the door of her home. They loaded the cab with everything she was taking with her. Then they made their mistake. They left the cab waiting while they went back upstairs for final goodbyes.

When they returned, the cab was gone. All Miss Chance had left was her air ticket to Spain. Everything else had been stolen by the cab driver.

People in Harlem heard what had happened. Before you knew it, Miss Chance had four new suitcases, new clothes, even a new wig. People who cared had given the bad dream a happy ending.

Karen's Recall: It's about Patricia she, she was gonna go to Spain. She had a ticket. She bought a ticket. And she called a cab and he put all her stuff in the cab. And she went back in the house to say good-bye to the rest of them. When she got back the cab was gone. The cab driver stole all her stuff.

E: Why was she going to Spain? Do you remember?

Karen: No response

E: And what happened after the cab driver stole all her stuff?

Karen: Ummm(very long pause)

E: What did her friends and neighbours do for her?

Karen: Happy dreams?

While Karen indicated that she had not used any deliberate strategies to help her recall text(see excerpt 53), she did acknowledge that the pictures accompanying the

passages had helped her in reading the passages.

Excerpt 78 (May 9)

E: All of the stories I asked you to read have pictures with them ... Were the pictures of any help to you?

Karen: Yeh, a little.

E: In what way would the picture help you?(showed her one with a picture, "Was It Worth It")

Karen: You know what they're doing. ²⁴

While the pictures were text relevant, the detail in the pictures was not specific enough to be of great help in recalling the passages. For example, the picture for the text "Poisons in the Woods" shows poison ivy and a person scratching his arm. The picture for "All's Well That Ends Well" shows two girls standing beside the trunk of a taxi with suitcases in their hands.

Bob: While Karen's recalls were vague, Bob's recalls of both narrative and informational passages continued to be accurate and organized around the paragraph structure of the passage, as was evident in the first session.

Excerpt 79 (March 16)

Text: (Narrative, "Lost In A Cave") A 17-year-old cave explorer was rescued, wet and cold, today. He had been trapped for twenty-three hours without food or light inside a narrow part of a cave.

Bill Dean had gone exploring by himself yesterday afternoon with only a lamp to light his way. Less than an hour after he entered the cave, his light went out.

²⁴ Again, Karen had given a vague, general explanation, making it impossible to determine exactly how she used the pictures when reading.

He sat in the damp darkness the rest of the day, all night and part of today. "I was a little bit scared," Bill said.

He had decided against trying to find his way out. He thought it best to wait for somebody to rescue him.

One boy crawled 600 feet into the cave, but could not find Bill.

Finally, one of Bill's friends and a teacher crawled slowly inside, found him and led him to safety.

Bob's Recall: The story's about Bill. He uh, went exploring and he got lost in a cave for twenty-three hours. And uh, no there was not no light or food. And one friend of Bill's climbed six hundred feet but could not find him. And another friend of Bill and his teacher found Bill lying - and dragged him to safety.

Text:(Informational, "A Useful Bird") The owl is an amusing bird. It sleeps in the daytime and hunts for food at night. Some farmers like it because it catches mice and rats for food. It also eats grasshoppers, cutworms, and other insects. The owl swallows food whole. Later it spits up the bones, skin, and hair in little balls.

When the owl gets ready to build its nest, it gathers grass and feathers. It builds its nest in a hollow tree trunk. Soon the nest may hold four or five eggs.

There are many kinds of owls of different sizes and colors. In the far north, we find white owls that match the white snow. On farms, we find the common brown barn owl. In Texas, we find the tiniest owl of all, called the elf owl.

Birds like the owl lose their homes when forests are cut down. Some people are now working to pass laws to protect these important birds.

Bob's Recall: This is all about owls. It tells you how farmers like the owls because they eat mice, rats and worms. And there's many species of owls. And there's a special owl in Texas. They live, make their homes in hollow trees. And uh, they're trying now to protect the owl. - There are many different sizes of owls it said in the story.

In Bob's recall of the passage, "A Useful Bird", he substituted the more specific word "species" for "kinds" used in the text. Bob's listening and speaking vocabularies were noticeably superior not only to those of the other subjects in this study, but also to those of other students in the program. His wealth of life experiences evident in his breadth of vocabulary was most evident during group reading classes. As was noted in the description of Mr. S.'s reading classes, Mr. S. often asked the meaning of a word and left it open for anyone to respond. Bob usually responded quickly with an accurate meaning for the word. Bob was also aware of the meanings of many common expressions.

Excerpt 80 (March 16)

Mr. S.: (in reference to part of the story) It is true that an ostrich will stick its head in the sand. Why does it

Bob: It hopes the trouble will go away. If you can't see it it won't happen.

Lisa: While Lisa's score on the vocabulary sub-test of the WAIS indicated that her level of vocabulary knowledge was not nearly as weak as Karen's, neither did it appear to be as strong as Bob's. While Bob was the major contributor of vocabulary meanings during reading classes, Lisa also contributed to these discussions at times. Her definitions were usually not as precise as Bob's, but did indicate familiarity with the word and some notion of the context in which it could be used. During a session in late April, both

she and Bob were asked to define "scholarship". The difference in precision of meanings is apparent in their discussions of this word.

Excerpt 81 (April 20)

E: Do you know what a scholarship is?

Lisa: It's uh - I know what it is but I just uh It's an award - you get for, for - oh what is it? - it's university (E: You're in the right ball park) I don't know what it is, what it's for. Isn't it for just passing, like getting all your, your goal - whatever you went in for so you got it and you got a scholarship or something.

Excerpt 82 (April 20)

E: Do you know what a scholarship is?

Bob: Yeh. You get it in school. You get entry free or something - You don't have to pay to get into college cause your marks are so good.

While Lisa's recalls contained a high proportion of information consistent with the text, they were not as accurate as Bob's. As in the first session, there was evidence in her recalls of both narrative and informational passages, that she accurately recalled some text details but that she often combined these details in ways inconsistent with the text.

In the excerpt below, from Lisa's recall of the informational passage, "Making Soap For A Year", she recalled that there were two stages in making soap. She accurately recalled the ingredients used in the first stage and the way the process of making soap was started. However,

her description of the rest of the process was inaccurate and appeared to be based on her own knowledge of cooking.

Excerpt 83 (March 2)

Text:(from "Making Soap for a Year") In pioneer days, soap was made at home. First the pioneers put a spout into a hole in a barrel. They placed the barrel on a bench with the spout pointing into a wooden pail. They filled the barrel with wood ashes they had saved. Then they poured water over the ashes.

The water seeped through the ashes. It came out of the spout and dropped into the pail. By then it had become a brown liquid called lye.

It was very important to know just how strong to make the lye. In a big kettle, grease and fat were mixed with the lye. This mixture was heated slowly for some time. When the mixture was thick enough, the kettle was cooled. The thickened lye and grease was now soap. It was kept in a barrel....

'Lisa's Recall: Ok. They're makin soap and they, how they make it is, They have a big barrel and they put wood in and ashes. Then they pour water over it and heat that and they cook it all up and it kind of turns into a lye, white stuff, lye. And then from that um if they boil it really hard it will turn into a soap....

It is interesting to note that Lisa replaced the passage description of lye as brown with her concept of lye as white. Such experiential intrusions were evident on three other occasions.

In her recalls of narrative passages Lisa often mismatched characters and actions. In the excerpt below, from Lisa's recall of the narrative passage, "Bear Killed to Save Man", she has recalled the events of the episode but she has the wrong characters doing the actions.

Excerpt 84 (March 2)

Text: (from *Bear Killed To Save Man*) Then Eddie Rodriguez, the lionkeeper at the zoo, went to help the policeman. He started pushing the bear with a stick, but that didn't work either. "Then," the policeman said, "I made up my mind I'd have to shoot the bear."

The policeman fired into the left side of the animal's chest. The bear let go of the man's hand. He staggered back and fell dead. The man was taken to the hospital where he was put under care for shock and cuts.

Lisa's Recall: ... And finally he got away - like a whole bunch of other guys came, the lion keeper came and some other guys that were standing behind him helped him. They finally got the bear away. The lion keeper fired a shot into his left side, the bear. And that kept him away and they got the man out of there and he just staggered away - fell down - they thought he was dead so they took him to the hospital.

The policeman, not the lion keeper, shot the bear. The bear staggered away and fell dead, not the man. Lisa wove all of these misinterpretations into a good story.

Lisa always attempted to tell a good, coherent story in her recalls of narrative passages. Her recalls of narrative passages were always plausible stories. To detect inaccuracies in the story, it would be necessary to refer to the original text. It was suspected that some of the inaccuracies in Lisa's recalls were inserted to make a cohesive story when details of portions of the story were fuzzy.

Excerpt 85 (April 20)

Text:(from *Rescue in a Burning Building*) Then he saw another fireman, Mike Mays, motioning to him with his arms held out. Mays was on the roof of the next building, which was level with the fire escape. A space of only four feet separated the two buildings, but there was a fifty-foot drop to the ground. Lane tried to pass

Mrs. Rogers over to Mays, but the gap was too wide.

Lisa's Recall: ... And there was this other apartment just four feet away from this other one. And it was a fifty-foot drop like in between them. And there was this other guy that had - waved at him from the bottom. And said "Well we'll try this way. And he went up on the other roof of the other building.

In the above recall Lisa retained the two number facts accurately, but confused the details of the rescue.

Lisa often accurately recalled details such as numbers, names of people, and places, and yet inaccurately recalled major episodes of narrative stories and main ideas of informational stories. This incongruity was probably due to her rereading strategy. In the first session she indicated that when she reread she tried to note details such as names and dates. She commented on her rereading strategy again during the study. Her comments always indicated attention to details during rereading.

Excerpt 86 (March 2)

E: When you go back and you just sort of seem to be scanning down the page, what do you look for?

Lisa: Just the people's names, just points. I don't know just little hints. Just if I've forgotten something I just look for the names.

Of the three subjects, Lisa was the only one who responded to the pre-reading questions which were sometimes part of the text of the narrative passages. On two occasions she spontaneously responded to these questions at the end of her recall.

Excerpt 87 (March 19)

Text:(from Lost In A Cave) Did Bill Dean "use his head" when he was in danger?

Lisa (at end of recall) So I think that it would, it was right to stay there and wait.

Excerpt 88 (April 18)

Text:(All's Well That Ends Well) What does this story teach you about people?

Lisa:(at end of recall) But, the idea of it all is that she could kinda rely on her friends.

Summary of Reading Strategies

In the first session with the subjects, and verified in subsequent sessions, it was clear that these three subjects were different not only with respect to background and personal characteristics, but also with respect to text-processing strategies. While there were some similarities in the reading strategies of the subjects, there were also many differences. The overall pattern of strategies was different for each subject. All subjects expressed an awareness of the potential usefulness of graphic and contextual cues when reading and they showed evidence of using both graphic and contextual cues when reading. However, Bob relied strongly on contextual cues, while Karen relied strongly on graphic cues. Lisa relied more on graphic cues than contextual cues although her reliance on graphic cues was not as strong as it was for Karen. It appeared that Bob's strong reliance on contextual cues was due to lack of sufficient graphophonic knowledge to

enable him to use graphic cues effectively. Karen's strong reliance on graphic cues appeared to be due to lack of sufficient background knowledge to enable her to use contextual cues effectively. Lisa's reliance on graphic cues was due, at least partly, to her overconcern with her oral reading performance.

Further, there were differences in the content of the text recalls among the three subjects as well as the strategies they used to recall text. Bob accurately recalled the main ideas and many supporting details of both narrative and informational passages. When recalling informational passages, he appeared to use the paragraph structure to organize his recalls. It is suspected that a strong sense of story aided him in recalling narrative passages, for he remarked that narrative passages were easier because they were like everyday events and the reader could therefore predict what was going to happen. Lisa usually reread passages, skimming for details such as place names, dates and names of people. She appeared to try to organize her recalls around these details. This strategy often resulted in erroneous interpretations of the text. However, a strong sense of story was evident in Lisa's recalls of narrative passages. In her recalls of narrative passages she always wove the erroneous interpretations of the text into plausible stories.

While there were no differences in the recalls of Lisa and Bob on narrative and informational passages, there were

differences in Karen's recalls on the two types of passages. Her recalls of narrative passages were much more detailed than were her recalls of informational passages. However, her recalls on both types of passages were inadequate. She did not use any one strategy consistently for recalling informational text. Sometimes she recalled only the theme of the informational passage; at other times she recalled two or three details of the passage. Karen appeared to have partially developed a story structure for narratives. However, she often left out significant episodes in her recalls of narrative passages, which suggested that her sense of story was not nearly as well developed as that of Bob or Lisa.

G. Role of the Program in the Learning Process

This section presents a discussion of the relationships between the program and the development of reading strategies, between the program and the self-directed activities of the subjects, and between the program and achievement.

Relationship of the Program to Reading Strategies

The main focus of the reading portion of the subjects' program was the development of word identification skills. This component of the program is similar to developmental word identification programs traditionally found in basal readers. There was no corresponding developmental comprehension program. No direct teaching of comprehension

skills or of strategies for organizing text for recall was observed during the study. Oral questioning and multiple choice questions were used to check students' comprehension of materials read.

The focus of the program was the development of specific phonics skills rather than the development of general reading strategies. There was, however, much oral reading in the program and in correcting students' errors or in aiding students to identify unknown words, the teachers often suggested particular reading strategies, most frequently suggesting a careful analysis of the graphic cues within words and the application of phonic knowledge to these clues. Teachers were rarely observed suggesting the use of semantic context or the integration of graphic and semantic cues as reading strategies. There seemed to be an implicit assumption, evident in both the content of the program and the comments of teachers, that integration of use of semantic and graphic cues was something which students had to work out for themselves through "personally struggling with reading" as one of the teachers described it. Mrs. D. and Mrs. M. in particular, often mentioned that they believed that being able to use "context" was important in reading and that practice was important because that was where the students really began to apply what they were learning in class.

The few changes which occurred during the study in the subjects' text-processing strategies appeared related to the

instructional program which the subjects received. Further, it will be argued that there were no changes in many of the inappropriate or ineffective strategies of the subjects because of a lack of direct teaching in the program which, could potentially bring about changes in such strategies.

During the study changes occurred in Bob's and Lisa's proficiency in analysing graphic cues within words. Lisa became more proficient in analysing multi-syllable words, particularly two-syllable words. This increased proficiency may be attributed to an increased accuracy in associating sounds with vowel letters and an increased flexibility in chunking words into orthographic units. These changes may be directly related to the instruction in syllabication which Lisa received in phonics classes.

Toward the end of the study, it was evident that Bob had become more systematic in analysing graphic cues within words. An analysis of his deliberate attempts on words indicated that in his response he usually attempted to preserve the order of occurrence of the consonant letters of the target word. He sometimes selected a common CVC letter pattern and associated the appropriate sound unit to it, particularly if the pattern occurred at the beginning of the target word. These changes in Bob's word analysis strategies may be partly attributed to the instruction which he received. The emphasis in the program on word identification accuracy and careful analysis of all graphic cues within words probably helped to focus his attention more on graphic

cues when reading. He received formal phonics instruction only in initial consonant blends. Yet, he showed evidence of having generalized some common letter-clusters during the study. However, teachers often modelled the chunking of words into units larger than single letters when correcting errors or assisting students to identify unknown words. It appears that Bob not only attempted to model this strategy, but also that through this modelling by the teachers and probably also through his own experiences with print, he generalized some of the common letter-clusters, thus allowing him to attempt to use this strategy.

While Bob and Lisa showed increased proficiency in using graphic cues during the study, they continued to rely on contextual cues as well, and they attempted to integrate the use of graphic and contextual information when reading.²⁵ Yet, integration of graphic and contextual cues was not emphasized in the program. Both Bob and Lisa believed, however, that use of contextual information was a useful reading strategy. Thus, while the instructional program influenced the development of their reading strategies, their concepts of reading also played a role in this development.

There were no evident changes in Karen's strategies for analysing graphic cues within words. Because she made few

²⁵ Interestingly, the miscue categorization system used to analyse their oral reading errors was not sensitive to these beginnings of changes. The distribution of their errors across the graphic and contextual categories remained constant throughout the study.

overt attempts on words and rarely reported on her reading strategies, the researcher had to rely primarily on the miscue categorization system to detect changes in her strategies. It is possible that changes occurred which were not detected by the techniques used to analyse the data. However, changes in Karen's graphic analysis strategies would not be anticipated on the basis of the instruction which she received in word identification skills.

Instruction in this area was not at a level commensurate with her ability. It was evident in the initial session with Karen that she had generalized many common letter-clusters and applied this knowledge in chunking multisyllabic words into letter-clusters. Nevertheless she was placed in a phonics group working on consonant blends in the initial position, rather than in the group which was working on syllabication skills. This placement was based on the results of a written test of knowledge of sound to symbol relationships.

There was evidence during the study that Karen used semantic cues more effectively when reading narrative passages than when reading informational passages, and she indicated, too, that she relied on semantic context when reading. Nevertheless the categorization of her oral reading errors indicated that she continued during the study to rely strongly on graphic cues. It was hypothesized that Karen's limited vocabulary and lack of world knowledge had partly contributed to the development of her overreliance on

graphic cues and that these two factors continued to inhibit the development of a strategy of relying on contextual cues. While vocabulary was taught incidentally in both Mr. S.'s phonics classes and reading classes, and while Mr. S. also sometimes provided general knowledge as the opportunity to do so arose within his classes, vocabulary development and general knowledge were not part of the curriculum of the program. There was no direct attempt to teach vocabulary or background knowledge. The effectiveness of these incidental teachings of vocabulary and background knowledge was not determined in the study. It is suspected, that, given the extent of Karen's deficits in these areas, this instruction was insufficient to meet her needs.

While there was evidence during the study that Karen was able to recall narrative passages better than informational passages, there were no changes during the study in the nature of the content of the subjects' recalls nor in the strategies used by the subjects to recall passages. In the program comprehension was practised, not taught. The emphasis was on recall from passages read of literal information and sometimes main ideas. It is apparent that this practice was not sufficient to cause changes in the subjects' recalls or strategies for recalling text. Although the informational passages which the subjects read in testing situations were identical in structure to those

passages which they read in reading classes, ¹⁴ no changes in their strategies on these passages occurred during the study.

Relationship of the Program to Self-Directed Activities

The teachers believed that it was important for the students to practise reading books on their own. They had instituted the weekly USSR period to get students involved in personal reading of books and magazines. Yet, of the three subjects, only Karen consistently read books, magazines and newspaper articles outside of the classroom. She had developed a personal reading habit before entering the program and expanded her reading interests upon exposure in the city to a wider variety of reading materials such as magazines and the newspaper. Bob never read connected discourse outside of the classroom. While Lisa read the newspaper she read only the farm advertisements and the horoscope.

The teachers did not effectively convey to Bob and Lisa their beliefs that personal reading and practice in reading books were important for growth in reading ability. The content of the instructional program influenced Bob's choices of out of class reading materials. Whenever he worked on his reading in the evenings, he always did worksheets from the individualized program because he believed that completing a large number of worksheets was

¹⁴ Passages from the next level of the same series were used.

the key to success in the program. Lisa's choices for out of class reading materials appeared to be influenced partly by the program and partly by her prior school experiences. During the first half of the study Lisa practised oral reading, which she was required to do daily in the classroom. During the last half of the study she worked through a workbook on vocabulary development which she had begun in her last school experience.

Bob's and Lisa's lack of book reading outside of the classroom, despite the professed beliefs of the teachers that personal reading was important, may be attributed to two factors: 1) the teachers did not provide enough direction to students on their choices of out of class reading activities; 2) a climate for book reading was not established in the classroom. During the study, apart from short homework assignments, the teachers appeared to avoid deliberately suggesting reading activities to be carried on outside of the classroom, perhaps because they did not want students to feel that they had to do reading at home as well as in the classroom. It was evident that the teachers hoped that students would continue to read at home books begun during USSR periods; the teachers did, at times, suggest reading materials to students during these periods. Yet, during the study the teachers were not observed following up these suggestions or discussing with subjects their out of class reading activities.

While the USSR periods were an attempt to provide an opportunity for the development of personal reading habits, these periods were the only time, apart from coffee breaks and lunch hour, when students were free to choose their own materials to read. Further, apart from the bookcase at the back of the main classroom, there were no displays of books, magazines or informative pamphlets in the main classroom to encourage personal reading. It is very difficult to locate interesting materials for adults written at the reading levels of the students in this classroom. Students, however, were not made aware of the limited resources available within the community or even within their school and class setting. Some adult-oriented reading material was available in one of the smaller rooms adjoining the main classroom. Yet the subjects in the study were unaware of these materials. For example, multiple copies of the book "Real Stories" from which the narrative passages were selected during the study were located in this room. All of the subjects had indicated that they found these stories interesting; none of them ever discovered during the study that they were available within the class setting. Further, during the period of the study, the community library established a collection for adult beginning readers. Yet the students were not taken to the library to see this collection, nor were they taken to the library within the institution.

Relationship of the Program to Achievement

The students and the teachers measured success in the program primarily by grade-score gains on the comprehension section of the Gates-MacGinitie Reading Test, Level C. This test is a developmental reading test, intended for use with children at the grade three level. The comprehension section is a power test which contains short paragraphs followed by multiple choice questions. From this perspective the program was successful. This test was administered in February, during the first week of the study, and was readministered in mid-April, and again at the end of June. Testing results in mid-April showed that Lisa had made a grade-score gain of 1.1 years, that Karen had made a grade-score gain of 2 years and that Bob had made a grade-score gain of 2.6 years.

H. Perceptions of the Program

Students' views of the program were ascertained from their unsolicited comments during the study and from their responses to direct questions at the end of the study.

Subjects' Perceptions of the Program

All subjects viewed their experiences in the program and their success in the program positively. When questioned directly about their improvement, they attributed success primarily to the content of the individualized and phonics sections of the program and to the reading practice which these programs provided. It was also apparent that the learning environment of the program probably played a role

in these positive perceptions. Further, improvement in self-confidence was a factor with Bob and Lisa.

Excerpt 89 (April 17)

E: ... so what do you think helped you to make the improvement?

Lisa: Uh, reading lots, I think. Since I came here.

E: What do you mean by reading lots?

Lisa: Reading, like out of your books, like the workbooks that we're doing and yellow sheets (writing sheets) and that. You gotta read a lot in there. And I think that helps you, it makes you pick up faster.

E: Oh, so even when you're doing writing sheets you have to read them all so (Lisa: yeh). Is there anything particular that you're learning that's making it easier when you try to read?

Lisa: Uh, - breaking up syllables, vowel sounds, things like that help a lot.

While Karen never mentioned phonics classes as being helpful, she attributed her success in the program to her work on individualized writing sheets.

Excerpt 90 (April 17)

E: Do you have any idea what's helping you to improve?

Karen: Well - doin writin and reading off and on.

E: How do you think the writing helps you. Lisa mentioned that too.

Karen: Well you have to read, read it and then write.

E: Oh, so you think just having to read all those sheets (Karen: Uh-hmm) is helping your reading.

Like Lisa, Bob also felt that the work on phonics and writing worksheets was the most valuable part of the program

and often mentioned this fact throughout the study.

Excerpt 91 (April 2)

E: (Discussing the improvement in his reading) I was just wondering if there was anything in particular that you were doing

Bob: No, ... but my reading is getting better - the one thing I'd put on it is my getting after it and doing it and my phonics. And that the worksheets help. That's about it.

Excerpt 92 (March 16)

E: (He had commented that his reading is getting better) Do you have any idea what kinds of things would be helping you?

Bob: Well I got to take it back to the phonics and the writing you know.

E: So you think those are the two big things that are helping you, the phonics and the writing?

Bob: Yeh, they're helping but mostly it is - is what, it is I'm getting self-con - I'm feeling better about myself. And uh I'm just wanting to do it. Learning is a good thing.

These excerpts also suggest that Bob attributed part of his success in the program to personal initiative. This improvement in reading also bolstered his self-confidence. He once remarked, "I used to think that I was dumb, but now I don't think so."

Success in the program also improved Lisa's self-confidence.

Excerpt 93 (May 9)

E: Is learning to read better changing your life in any way? How has it affected you? - Coming here and improving your reading?

Lisa: It's made me, it's made me more easy ... Like I'm more open. Like I'm more able, like I don't know how to say it. I like to ask for things that I don't know. Like if I don't know something I'll ask it. Before I wouldn't cause I was too scared they were gonna say well look you're dumb. Now I don't really care about that. If I wanta know something I would ask.

When Karen was asked this same question her response indicated that she did not have feelings of inadequacy often attributed to adult illiterates. She came to the program to get an education; the program was changing her life by giving her that education.

Excerpt 94 (May 9)

E: Has coming here to NBCC and learning to read ... changing your life in any way? Do you feel it's making any changes in your life?

Karen: Well, it's sort of - I'm learning how to write and how to read better - bigger words

E: How does that make you feel about yourself.

Karen: Feel good!

All of the subjects responded favorably to the learning environment in the program. Bob and Karen particularly liked the individualized aspect of the program.

Excerpt 95 (Feb. 23)

Bob:(in middle of discussion of how he was using a dictionary) ... If you want to you can do it. Like they're not standing over you saying this has to be done today and this is - you have to learn this. You're not pressured. You just go along on your own speed which is good.

Excerpt 96 (May 9)

E: What do you like best about the program?

Karen: They don't give you a certain much to do in one day. That's what I like about it.

While Lisa liked the personal attention made possible by individualized periods, she preferred group activities because they provided her with another opportunity for oral reading practice.

Excerpt 97 (May 9)

E: What are some things that you like, don't like about the program here?

Lisa: I like it all. No, I think it's really good cause they spend time with you. If you need more time they're willing to give it to you. And I think that's really good. Like some schools they don't, like if you need help, that's during school time or else forget it. This school's not like that.

E: So you find it much better than the learning experiences you had in school.

Lisa: Yeh, more time to spend with you.

E: How do you like individualized periods?

Lisa: Yeh. I like them. But I like to read. Like my problem is reading with a bunch of people, like in a group and that because it makes me nervous. So I like to get into more reading out loud.

Teachers' Perceptions of the Program

While no formal attempts were made during the study to assess the teachers' perceptions of the program, some information was gathered informally through coffee-break and noon-hour discussions.

It was evident that the program accurately reflected many of the teacher's personal beliefs on teaching adults to read. Mrs. D. and Mr. S. stated that because many of the

adults in this program were "slow in school" they needed lots of repetition, which the program provided. Mrs. D. and Mr. S. also strongly believed in the need to do extensive work on phonics with these adults. There was a strong emphasis on phonics in the program. Moreover, Mrs. D. and Mrs. M. indicated that practice was important in learning to read. They were instrumental in establishing the USSR on Friday afternoons. Mrs. M., in particular, believed the success of this program was due not so much to the teaching as to the amount of reading the students did during individualized periods.

Mr. S. was less satisfied with the program than Mrs. M. or Mrs. D. Because Mrs. M. and Mrs. D. had both helped to reorganize the program the previous fall, it probably more accurately reflected their teaching beliefs. They were also pleased with the success of the program, as students were making larger grade-score gains in the new program.

Mr. S., however, felt that the students were not making enough gains. He did not like the group work and felt that the students should be on a totally individualized commercial program. Mrs. D. indicated that they had tried a totally individualized program last fall, but that they had gone back to group work because they "couldn't get around to everyone, particularly during phonics".

All of the teachers indicated an awareness of problems with the program. Mr. S. noted a lack of emphasis on

comprehension in the program. Mrs. D. often commented that there was no time to discuss with students materials which they were reading during USSR periods. All three of the teachers identified the amount of time spent correcting as a problem. They often expressed frustration over the length of time required to mark just one student's work.

On one occasion, the teachers alluded to the inability of the program to meet a student's needs. One morning, Mr. S., Mrs. D. and Mrs. M. discussed Karen and her potential to obtain a high school equivalency. Mrs. D. and Mrs. M. noted that, like her brothers and sisters before her, she would probably reach a plateau and level off because her poor background would affect her comprehension. However, they viewed this situation more as a problem for Karen rather than a problem of the program's not being able to meet Karen's needs.

This chapter presented data pertinent to the three subjects who entered the program reading at a mid grade three level. Their reading strategies and program were described separately. Subject and teacher perceptions of the program were presented. Relationships between the program and reading strategies, between the program and self-directed activities and between the program and achievement were discussed. In the next chapter, Mary, the beginning reader in the study, and her program are described and discussed.

V. MARY

A. The Beginning Reader

Who Is She

Mary is a twenty-five year old native Indian woman, the mother of five children aged three to nine. Mary was not enrolled in school on the reserve until the age of nine because, as she explained it, "she did not talk well until then." There were problems immediately. She was much older than the other grade one children and was often teased. When she was 11 she became a boarder at the school. By the time she was 13 she was the "bully" of the school. After repeated arguments between Mary's mother and the principal of the school, Mary was transferred to a school in a nearby town. She was placed in the grade seven classroom and stayed in the school for three or four months. During this time she was absent frequently and was expelled twice.

Within a few months of leaving school, Mary was placed for one year in a juvenile detention home in the city for, as she put it, "getting into lots of trouble, stealing and stuff". While she was in the home her mother died of an illness caused from alcohol abuse.

Upon her release from the detention home, Mary returned to the reserve. Within a few months she was pregnant by the man who eventually became her common-law husband. Because she was underage, she was again brought to the detention home. After the baby was born, she lived in an apartment in

the city with the baby. After one year she returned to the reserve and lived with the baby's father for the next eight years, during which time she had four more children. The relationship ~~was~~ characterized by alcohol abuse and fighting. Two years ago, Mary left her husband, eventually gave up drinking, and, encouraged by her social worker, came to the city to enroll in the upgrading program.

Mary's new life in the city has been a positive experience, aided by people who "care about you": her social worker, her teachers and her friends at the Friendship Centre. Both the teachers and Mary herself commented on how much her self-confidence had improved since she had first enrolled in the program.

Excerpt 1 (Feb. 16)

Mary: (she is discussing how her social worker is helping her)... And when somebody talks to me now - I (used to) put my head down and hardly talk and now she (the social worker) told me I just look at her straight and I talk to her. And I relax when I talk to somebody. - Before I get nervous and I used to crack my - my (knuckles)

Why Did She Come

Although Mary enrolled in the program at the urging of a social worker, and although she indicated as a requirement of entering the program, a goal of getting a grade six reading level so that she could take the janitorial course, her reasons for entering the program were, like Bob, primarily personal. She was embarrassed about being

¹¹ A social centre for Native Indians living in the city.

illiterate and, at the same time, angry about her perceived powerlessness as a result of being illiterate in a literate society.

Excerpt 2 (Feb. 15)

E: Why do you want to learn to read?

Mary: Cause it's interesting and it's - being wantin to read for a long time - It's very hard - (very long pause)

E: Not to be able to read?

Mary: Yeh

E: In what ways?

Mary: It's like, it's like you're I don't know how to explain it but - It's like you're in a - It's like you're in a hole someplace and you can't get out - And you wanta get out but you can't and you get angry more and more and you make lots of mistakes. And sometimes you don't know what you're, what people tell you to sign your name and you don't even know what's that for. And you try to tell them and they tell you and you don't even understand what they say mostly, and you're shy to ask them you know. What's that mean you know and they'll say what a dummy - doesn't understand. And lots of banks I go to and they tell me to sign. I told them what's that for and they said did you read it? And some of them, maybe they don't even believe them (you) ' when you tell them you cannot read and that's - It's shameful. Kinda I get barassed and - mostly I just - I don't know it's very hard - And it gets me mad too.

When asked this same question at the end of the study, Mary again expressed her feelings of frustration and shame because of her inability to read. She also again expressed her uneasiness because she could not fill in her own forms.

' Dialectical differences in use of pronouns were often evident in Mary's oral language.

Excerpt 3 (May 10)

E: Why do you want to learn to read?

Mary: ... Because then I'll know how to fill out papers instead of getting somebody to fill it out for me. If somebody fill it out for me they fill it out *different*. I want to fill it the way I want it and I want to know how to fill it myself. When my kids come home with forms I don't know how to fill it out. Stuff like that I want to know.

Mary had realistic expectations for herself and for the coming term. She confided that she "used to daydream to be a social worker, to help these Indian people, cause (she) knows how it is cause (she's) been there" but that she realized "it (would) take about half of (her) years to get there". And so, she had set the goal for herself of achieving a grade six or seven reading level, not only because she wanted to enrol in the junior course, but also because she felt this level would allow her to function in society. She did not expect to reach this reading level during this term and she expected to enroll in the program again the following year. As she put it, she's very "patient" and she doesn't "care how long it takes".

Although Mary received much guidance and support during the study from her teachers and her social worker, which no doubt played a significant role in her perseverance in the program despite personal problems, it was also evident

 " During the study her husband returned on several occasions and she finally had to get a court order to prohibit him from visiting her. Her niece, who lived with her also had a baby and was often irresponsible in caring for the baby.

that much of Mary's perseverance was due to her self-discipline and determination. When she would get "down", she would make herself get going again.

Excerpt 4 (March 7)

Mary: (discussing a new phonic generalization discovery) Oh, I'll never learn I used to say. And then, after lately, I start saying I should try you know. Put my foot down and try. I'm wasting my life if I just give up like that you know. Went this far. I may as well keep goin

Excerpt 5 (March 9)

Mary: (discussing her childhood) She (her mother) just gave up. But me, I'm not gonna give up.

Excerpt 6 (March 30)

E: (discussing how she figures out words differently now) Do you know what you're doing differently now?

Mary: Well before I used to get so angry you know. And now I'm taming myself down. Because before I'd get really mad. It didn't get me no place. And after - patient, patient I just say to myself and I make it.

What Are Her Concepts of Reading.

In the first interview with Mary the researcher noted that she had a broad concept of reading. She saw reading as providing enjoyment and information and as a form of social communication.

Excerpt 7 (Feb. 16)

E: Why do you think people read?

Mary: Why they wanta read? Well they like to - you know - learn something - different things. Other people write letters. They wanta write letters to their friends when they're far. And they wanta hear news. And they wanta read stories if they have nothin to do. Well to learn,

new things I guess.

Although Mary appeared to suspect that people who could read did it differently than she did, she was not sure how they did it.

Excerpt 8 (Feb. 15)

E: What do you think people do when they read? How do you think they actually read?

Mary: Well, they just use their eyes. And they start over the beginning and they move their eyes every letter. That's the way to read.

E: You said they move their eyes every letter? Do you think they look at every letter on the page?

Mary: Well if you know this, like some good readers they just go over it nothin. But us, we have to go slow.

Mary acknowledged, in late March, that when she had entered the program in the fall, she thought that all she had to do to learn to read was to learn the names of the letters and then she would be able to call out the letters and put them together to read the words. During the first interview in February this concept was evident. But by this time, Mary had also learned some practical coping strategies for identifying words.

Excerpt 9 (Feb. 15)

E: If you were reading and came to a word that you didn't know, like you came to some words that you didn't know today, how could you figure out what the word is?

Mary: Well I try to say the names of the letter. And if I can't say it well I just ask one of the teachers or one of the students.

E: Are there any other ways that you could use to try to

figure out what a word is?

Mary: Well I look back where I'm reading, like the, some of the books you know like, when I read something like a story. It stays in my head and when I read, it comes back and I just read it like nothing. Well I look from where I'm reading and if it's not there I ask the teachers.

E: Oh, you mean you'd look back and see if it was in another story (Mary:Yeh) that you'd read?

Mary: Cause sometimes you know, like I finished three books(readers of a children's basal reading program) and I could, whenever I pick it up and I read it and I can it all comes back to me - the words.

E: So if you see a new word and you know it's in one of those books you've read (Mary:Yeh) you go to that book and look to see where you saw it so then it will come back to you?

Mary: Yeh.

The strategy of using completed basal readers as a reference source was one which had been suggested to Mary by Mrs. D. early in the first term. Mary not only had adopted this strategy, but was more systematic in using it than the above excerpt suggests. One day in early March, Mary was observed practising reading from the basal reader. She could not identify the word "time". She quickly flipped to the listing of new words in the back of the reader, located the word "time" and the page number on which it first occurred, turned to that page and read it until the word "popped out" in the old context. She then returned to the page on which she was reading and continued to read. She had used a marker to keep her place while she was doing this procedure.

B. Her Program

This section presents a description of Mary's program. Information regarding her program in first term was obtained from an analysis of her file and from discussions with the teachers.

First Term

When Mary entered the program in September, she was almost totally illiterate. She could read a few words, such as "dog", "boy" and the names of some of the letters of the alphabet. During the first half of the term she learned to identify, but not spell, sight words from the individualized, sight word lists and the sounds associated with some of the consonant letters. The Language Master was often used in this instruction. Once she had learned approximately 50 sight words, she was started in the preprimer of Ginn Basic Readers, a basal reading program commonly used with children in the 1950's and 1960's.

In November, reading groups and phonics groups were formed in the "0-4" room and the schedule described in chapter IV was established. Mary was placed in Mrs. D.'s reading group and remained in this group in second term. She was placed in Mrs. P's phonics group. **

During individualized periods Mary worked on sight words and the basal reader. No work was done in the writing program. By the end of the term Mary had learned the first

** Mrs. P was transferred to another position within the institution in second term.

109 words of the sight word lists; had completed the preprimer and the primer and corresponding workbooks of the basal reading series and had started the first grade reader, "On Cherry Street"; had been taught the sounds of all of the consonant letters in both initial and final positions and the sound of "short a" in combination with these letters; and through the use of picture stories in reading classes¹ had learned "colour words", names of common animals and some common nouns such as "house", "farm", "baby". This instructional pattern established for Mary by the end of first term was continued in second term.

Individualized Periods

During the first half of the study, Mary worked during individualized periods on sight words, the basal readers and sometimes phonics sheets. A teacher aide, who worked with her during these periods for one-half hour each day, listened to her read orally from her basal reader and corrected workbook pages with her. During the last week in March, and in April and May, Mary continued to work on sight words and phonics sheets on her own during individualized periods and practised reading children's books suggested to her by Mrs. D. However, during her half-hour periods with the teacher aide she worked on phonics skills rather than with the basal reader.

¹These will be described in the next section of this chapter.

Sight Word Program: In the second term Mary reviewed the 109 words learned in first term, this time following the program as described in chapter IV. She did all of the worksheets and drills and learned to spell the words as well as to identify them. By the end of the study she had completed worksheets for the first 122 words and had passed teacher tests and timed drills for the first 96 words.

Work in the Basal Reader: The following account of the introduction to the story "A Funny Surprise", observed on March 7, is typical of procedures used by Mrs. D. in working with Mary in the basal reader. Introductions to stories were usually no longer than ten minutes.

Mrs. D. began by turning to the back of the reader for the new words listed for the story. There were five new words for "A Funny Surprise". Mary correctly pronounced the first three words, "hide, around, us". When she hesitated on "noise", Mrs. D. told her "it begins with |n|". Because Mary could still not pronounce the word Mrs. D. told it to her. Mary again hesitated on "tinkle". Mrs. D. told her the word and then modelled breaking it into syllables, "tink - le". When Mary hesitated on the word "organ", Mrs. D. suggested that "It has the little word 'or' in it". Mary then correctly identified "gan" and put the two parts together to identify the word, "or-gan, organ".

Mrs. D. then, through a series of questions, drew Mary's attention to the picture preceding the story: "Who do you see in the picture with the music man?" "What does the

monkey have in his hand?" "Why do you think the monkey has a basket?" Mary responded to the third question by saying that the monkey and the man were going to "enter, enter" (trying to say entertain) the children. Mrs. D. asked the question again. When Mary provided no new information in her answer, Mrs. D. explained how the organ man would play and the monkey would pass around the basket for people to put pennies or dimes in.

Mrs. D. then turned to the first page of the story and directed Mary to read to find out about Susan: "This is Susan. Look on this page and find the part that tells about Susan and read it to me". Mary found it and read it out loud. Mrs. D. then directed Mary to read the story and do the workbook pages.

When the teacher aide worked with Mary in the basal reader, the aide first corrected completed workbook pages and then listened to Mary read orally from the reader. During correction of the workbook pages Mary read orally every exercise on the pages as well as her responses to the exercises.

When Mary read orally with the teacher aide, the teacher aide used a variation of the technique of shadow reading. She always supplied a word immediately when Mary hesitated and quickly corrected every error by providing the correct word. During these sessions no suggestions of word analysis techniques or word identification strategies were recorded by the researcher. The emphasis appeared to be on

fluent production.

During the study Mary completed the first grade reader "On Cherry Street" with the accompanying workbook as well as the first 19 pages of the workbook of the second grade reader "We Are Neighbours". The workbook pages which Mary completed in the first grade reader emphasized use of picture clues, context clues, development of a sight vocabulary, literal comprehension, and initial and final consonants. Except for the pages on initial and final consonants and test pages, the workbook exercises were always set within the context of sentences or paragraphs. While only 31 of the workbook pages had as the stated purpose the development of use of picture clues, 90 of the workbook pages were illustrated and the illustrations were always text-relevant, i.e. the information in the picture was consistent with the text.

Other Supplementary Materials: When Mary completed the first grade reader in late March, Mrs. D. introduced her to some children's books, including some Aesop's fables. As Mrs. D. explained it, she wanted to get Mary into other reading materials. Mrs. D. also explained that she had used the first books in the basal series to get Mary into reading meaningful material so that she could "develop a sense of story" and build a basic sight vocabulary.

Mary did not like leaving the security of the controlled basal readers and she requested the next reader in the basal series. Although the basal reader was no longer

used in April and May in her instructional program with either Mrs. D. or the teacher aide and although only five of the 19 workbook pages which she completed on her own were corrected for her, Mary continued to work through this reader at home and at times during individualized periods.

On one occasion Mary was the only student present in reading class. Mrs. D. spent this period working through one of the Aesop's fables "The Hot Sun and the Cold Wind" with her. This situation provided an opportunity not only to observe the teaching strategies used with this book, but also to gain insight into how Mrs. D. might have worked with Mary in the basal readers in the first term. Mary read pages orally and silently, although most of the story was read orally. During the reading of the story Mrs. D. asked many questions. The questions emphasized reading for literal information. Fifteen questions were asked; all questions required the location or recall of information explicitly stated in the text, e.g. "On this page what did wind say he could do that proved he was stronger?" "What did they decide to do to see who was the stronger? Read this page to yourself and when you find the answer point it out to me and read it to me". At times, questions appeared to be used as a signal to continue oral reading following a discussion surrounding the identification of an unfamiliar word.

During the reading of the story Mrs. D. responded to Mary's oral reading errors and hesitations on unfamiliar words in a variety of ways: 1) she immediately corrected the

error and supplied the correct response, sometimes repeating Mary's incorrect response, e.g. "Not did. No they don't, don't. No they don't said the wind"; 2) she indicated that an error had been made, e.g. "No not a race but..." and waited for Mary to correct the error herself; 3) she provided a phonic clue such as the sound of an initial consonant e.g. "|sh|"; 4) she reminded Mary that the word was a sight word which she should know e.g. "That's a word from the green sheet (the sight word list)"; 5) she broke the word into graphophonic units, e.g. "g - lad"; 6) she reread a previous portion of the sentence for Mary or suggested that Mary reread a previous portion of the sentence; 7) she suggested that Mary omit the word and read the rest of the sentence; 8) she showed Mary the word in a section which she had read previously, e.g. pointed to the word in the paragraph above and said "same as this word".

During the reading of the story, Mrs. D. stopped and emphasized that the use of phonics and the reading of both the parts before the word and the parts after the word can help with the identification of an unfamiliar word: "See by reading this (prior portion of sentence) and this (rest of sentence) you will have some way of figuring out what the word is when you sound it out. So by using this and this you can figure out what might make sense there".

At the conclusion of the reading of the story, Mrs. D. did some teaching related to words with which Mary had had problems. She reviewed the final phonograms, "ake" and

"ong", the rule of the sound of two "e's", and she taught the new phonograms "or", "ar", "old". Mrs. D. concluded the lesson by teaching short lessons on usage of "self", as in "myself", "himself", "herself", "yourself" as well as the present and past tense of "blow".

Mrs. D.'s suggestion during this session of the use of surrounding context for word identification was observed on many occasions when she was working individually with Mary or with other students. However, in Mrs. D.'s reading and phonics group classes, observed during the study, the suggestion of this strategy was never recorded. In phonics and reading classes, the emphasis was always on using phonics skills to identify words.

Phonics Classes

Mary was placed in Mrs. D.'s phonics group in second term. During the term consonant sounds in initial and final positions were reviewed and the short vowel sounds, "a", "i" and "o" in CVC patterns were taught. Mrs. D. used many short practice activities in her classes and a variety of phonic teaching techniques: letter-blending, initial phonogram method, final phonogram method, word families, and initial consonant substitution.

The class on February 27 was typical of Mrs. D.'s phonics classes. The class began with Mrs. D. returning corrected review work sheets on initial consonant sounds. She then quickly reviewed the names of the vowels and the sounds associated with each of the consonants. During the

next five minutes there was a dictation exercise on final consonant sounds. Mrs. D. pronounced words, e.g. "dog" and the students wrote the letter representing the ending sound, e.g. "g". This exercise was self-corrected by the students.

During the next four minutes, Mrs. D. introduced the sound of "short a". She wrote the five vowels on the board and indicated that they would work on "a". She stressed that the name of the letter is "a", but that the sound of the letter is |a|. "Sometimes 'a' has the sound of the letter, |a|, and sometimes it has the name of the letter, 'a'". They would have to learn when it had the sound and when it had the name. She repeated the sound, |a|, and had the students repeat it several times.

She then wrote some sight words that the students knew, "an, and, at, after", and told them this rule: if "a" is at the beginning of a short word, then it has the sound |a|. She then put the mark for 'short a' on top of each of the a's, added "ax" to the list and asked the students to pronounce it.

She then introduced the rule of "a" in the middle of a CVC pattern, using "cat" as an example. She explained that if a short word has a vowel in the middle and a consonant on both sides, (wrote c v c on the blackboard), then the "a" in the middle will have the sound of "short a", |a|.

She later explained that she had done this activity quickly because they had taken short "a" before.

Mrs. D. moved to blending the sound of "short a" with initial consonant letters, e.g. ba, ca, da, fa, ma, and with final consonant letters, e.g. ap, ad, at, am. She pronounced the sound combinations and students repeated them after her. Students were told that they could use either of these techniques in decoding words. She then demonstrated the two techniques on words known to the students, e.g. |ca| - |t| or |c| - |at|. During this part of the lesson, students were encouraged to refer to letters by their sounds rather than their letter names.

During the next five minutes students read lists of word families from worksheets, e.g. cat, sat, hat, mat, fat, rat. After each family was read, Mrs. D. put the words on the blackboard and emphasized the final phonogram by underlining it. During this exercise a brief explanation of the meaning of "lag" was provided. Although this was the only time the meaning of a word was explained during this lesson, explanations of meanings of words often occurred in other phonics classes observed.

During the next four minutes, Mrs. D. dictated "short a" CVC words and the students wrote them in their notebooks. Mrs. D. wrote each word on the board immediately following its dication and emphasized each sound as she wrote the word, e.g. |h| - |a| - |m|.

Mrs. D. then wrote one sentence and three phrases containing "short a" CVC words on the blackboard and the students read them. She then showed them pictures of "short

a" CVC words, e.g. a picture of a "cap", and the students wrote the words representing the pictures in their notebooks. These words were corrected in the same manner as the previous dictation exercise. Again Mrs. D. emphasized the sound of each letter as she wrote the word on the blackboard. At the end of class worksheets from the phonics file were assigned and students were asked to practise reading their drill sheets on "short a" words for the next class.

What is not evident in the above description of the phonics class on February 27 is Mrs. D.'s willingness to alter an instructional plan to meet perceived needs of the group or of an individual student. Mrs. D. often identified a problem of an individual student within a class and spent time near the end of the period working with the student on the problem, while the other students worked on assigned worksheets or workbook pages. She always followed up this instruction by gathering extra materials for the student to work on during the week to remediate the difficulty.

It was after a phonics class on March 26, during which Mary had had great difficulty with "short i" words, that Mrs. D. decided to have the teacher aide do extra work on phonics with Mary during individualized periods. They had been working for a month in phonics class on "short i" words and had completed 19 worksheets on "i" and ten worksheets reviewing "a" and "i". Yet, during the class, Mary had been unable to read lists of "short i" word families and could

not accurately read sentences containing "short a" and "short i" words, e.g. Put the lid on the pan. "

The worksheets which Mary had completed on "short a" and "short i" had five types of exercises: writing the vowels representing the vowel sounds heard in words represented by pictures, circling words representing pictures, choosing words to complete sentences, practising reading isolated lists of words, and practising reading lists of unrelated sentences.

The teacher aide worked with Mary on phonics for one-half hour each day for the remainder of the study. She used word wheels, lists of word families, a variety of phonically regular stories obtained from children's supplementary phonics materials and a phonically regular reading program designed for ghetto black teenagers called "Hip Readers". Mary got further practice with "short a" and "short i" during individualized periods through work on the first book of the Sullivan Reading Program, a self-correcting program, and through using the Language Master.

Although Mrs. D. continued to use a variety of phonic teaching techniques in phonics class, and in working individually with Mary, the teacher aide consistently used the final phonogram technique, e.g. |b| - |in| in teaching

" In the beginning of the study Mary often remarked that she found the work on phonics very hard and she often avoided doing the phonics worksheets. During this particular class she could not find the phonics worksheets she was to have completed for the class.

Mary. When Mary mispronounced or hesitated on a CVC pattern word the teacher aide always either modelled the word for Mary, e.g. |b| -|it| or broke the word with her finger and asked Mary to pronounce the parts, e.g. she covered the "b" and showed Mary "it", asked Mary to pronounce "it" and then asked her to blend the "b" with "it".

During the months of April and early May, the teacher aide reviewed "short a" and "short i" with Mary and reinforced the work being done on "short o" in phonics class. During this month, in addition to the work with the teacher aide, Mary completed 20 worksheets on "short o" similar to those described for "short a" and "short i". At the end of the study, Mary was beginning work on "short u".

Reading Classes

Mary was placed in Mrs. D.'s reading group in November and remained in this group during the second term. The approach used with the four students in this group was similar to a language experience approach, but more teacher-controlled and directed than is typical in a language experience approach. In these classes pictures were used to stimulate stories in which common words, pre-selected by Mrs. D., were used. During the study, stories from first term were reviewed and new stories about a fox in winter, two people dancing, parts of the body and a big house were developed. At least two reading classes were spent on each story. Toward the end of the study, Mrs. D. sometimes worked with students individually during reading class. At these

times she worked with Mary on supplementary children's books.

The reading class observed on Thursday, March 2, was representative of classes in which the picture stories were used. The class began with Mrs. D. asking Mary to tell about the 'fox story' from last week. She showed Mary the picture which had been used to stimulate the story and Mary repeated all the story details. Mary was then asked to read the story orally. She made only one error in reading the story. Another student was also asked to read the story orally.

Mrs. D. then put the new words from the story on the blackboard and commented on phonic and structural elements within the words: "thick", begins with |th| and ends with |k|; "fur, begins with |f| and ends with |r|; "coat, first letter says |k|, here we've got two vowels together so the first one says its name and the second is silent, ends with |t|; "tail", |t| |l|(pointed to each letter), and here we have two vowels together again, |t| - |a| - |l|; "bushy, (underlined "sh"), says |sh| and "y" on the end says |e|; "feet, "e" "e" says |e| like see, three, tree (wrote these on the blackboard); "walking, (pointed to "ing") says |ing|, remember last day we looked at a lot of words you can put "i" "n" "g" on; "fox, remember we talked about rhyming words, fox, box, rhyming words must have the same vowel and ending sounds."

This description of the phonic and structural elements in the "new words" was typical of how Mrs. D. worked with

students. She seemed to try to make use of every opportunity not only to reinforce skills being taught in phonics class, as was evident in this class with the attention to beginning and ending consonants, but also to remark on common phonic rules, such as the two vowels rule, not yet taught in phonics class. Also she often modelled the breaking of words into syllables, e.g. "chimney, chim - ney", or the breaking of words into isolated sounds, e.g. "leg, "|l| - |e| - |g|", or sound units, e.g. "grass, |gr| - |ass|, and remarked on common letter clusters within words, e.g. "arm, |ar|, remember car".

During the class observed on March 2, a new story was developed around a picture of a boy and a girl dancing. Mrs. D. started the story by writing the first sentence on the blackboard and asking the students if they could read it, "The boy and girl are dancing." After the students had read the sentence correctly, Mrs. D. commented on the word "dancing", "Dancing comes from dance (wrote dance on the blackboard). You can read 'dan' (underlined it). Take 'e' off and put 'ing' on."

To elicit the next sentence in the story, Mrs. D. asked "Where are we usually when we are dancing?" Students replied "hall" and "disco" but Mrs. D. continued to probe for another word. When no further suggestions were made, Mrs. D. told them that "party" was the word she wanted because that was one of the words that she wanted to teach today. She then wrote "They are at a party" on the blackboard. She

underlined "ar" in "party" and noted that these letters together say |ar|.

Mrs. D. then asked if there was anything else that the students would like to say. Mary suggested "They are having fun". Mrs. D. then probed further about how they would feel, until she got the word "happy". She again acknowledged that "happy" was the word that she wanted to teach today. She then wrote the third sentence of the story on the blackboard, "They look happy". The students were then instructed to copy the story into their reading notebooks. She suggested that they might also try to figure out how to spell "disco" when they had finished copying the story.

During the next class, one week later, four more sentences were added to the story. "She has a smile on her face" was added in response to the question "How do you know the girl is happy?". "Her dress is yellow and purple. His shirt is red and his jeans are blue." were added in response to the questions "What is the girl wearing? What is the boy wearing?" Mrs. D. then asked "Are they dancing to music? How do you know?" She then explained that the "little notes in the picture tell you this. This is what it means when you see them in a picture". She then wrote "They are dancing to music" as the last sentence of the story. She then emphasized the two syllables in music by pointing to them and repeating them "mu - sic, mu - sic" and remarked that "you hear two vowels in music |u| and |i|".

USSR Periods

During the study, Mary read from her basal readers, "On Cherry Street" and "Are Neighbours", in USSR periods on Friday afternoons. She often continued to read beyond the half-hour time allotted to USSR. In early March, following a USSR period, Mrs. D. introduced some children's books to Mary as "something different" that she might like to read during these periods. Mrs. D. also suggested that Mary might like to read them to her children at home. Despite this suggestion, plus further suggestions by Mrs. D. to read some of the Aesop fable books during USSR periods, Mary persisted in choosing to read the basal readers during these periods. During the last USSR period observed for this study Mary did select a book from the bookcase at the back of the room, the grade four reader from the same basal series.

C. Self-Directed Activities

Mary's reading activities outside of the classroom were consistent with her belief, reinforced often by Mrs. D., that it was important to practise reading books. While Mary sometimes worked on sight word and phonics worksheets in the evenings, her most frequent reading activity outside of the classroom was practising reading from the basal readers.

Excerpt 10 (Feb. 15)

E: How do you think they will teach you to read?

Mary: Well right now, you know, they they keep courage me to keep reading. They said any book it's, you know, real low, to take it and keep practising. Mostly I do

reading. Keep bringin books home and I keep readin them.

During the last month of the study, Mary continued to read the basal readers, despite the fact that they were no longer used in her instructional program. She also practised reading children's books suggested to her by Mrs. D. and the phonics books which the teacher aide had given her.

When Mary came across an unfamiliar word when reading at home, she would ask her niece, who was staying with her, or one of her children for assistance. She would often put the word on a separate piece of paper and practise writing it "about ten times" because "what I write I remember". She also at times copied entire stories during the evenings or in spare time within the classroom, again because she believed that writing the words helped her to remember them.

Mary showed an interest in the newspaper during the study. She had the local newspaper delivered daily to her home. She tried to read the movie advertisements and picked out words which she knew in the headlines and in captions underneath pictures. She would then ask her niece to read to her stories which accompanied pictures that interested her. On two occasions she clipped articles from the newspaper, brought them in and discussed them with the researcher. One of the articles was a two-page article on the poor living conditions of a group of Indians in the northern part of the

* This technique was one she had used to learn sight words during first term.

province, which had appeared in the newspaper the evening before. She had identified a few of the words in the captions under the pictures and her niece had read the article to her. She spent 25 minutes describing how she had experienced many of the same problems identified in the article: poor housing conditions, lack of medical care, and alcoholism.

The second article was about a natural disaster which had occurred in her community. She discussed how she had reacted to the disaster. She had also clipped from the paper the notice for making claims for damage caused by the disaster and asked the researcher to explain the claim procedure to her.

D. Oral Reading Tasks

The researcher inferred Mary's oral reading strategies from an analysis of her errors on passages read during reading strategy sessions, her audible and visible attempts on words recorded during these sessions, her answers to retrospective questions regarding her strategies during these sessions, and observations of her reading by herself in the classroom. Two types of materials were used during the sessions with the researcher. Mary orally read passages from "Open the Gate", a supplement to the reader "On Cherry Street", and from the beginning readers of Laubach Streamlined English materials. These materials were new to Mary although the Laubach materials were available within

the classroom. Mary viewed the oral reading tasks as a check of "how (she's) doing" and whether she's "improving or not".

The categorization of Mary's oral reading errors on the basal passages indicated that she was able to use ongoing meaning effectively to predict words when reading and to monitor her oral productions. At least 50 percent of Mary's errors on all basal passages were categorized as contextually acceptable at the passage level. Mary corrected 11 errors on these passages; all but three of these were errors which had been categorized as having partial or no contextual acceptability. Further, all errors which had been categorized as partially contextually acceptable on these passages were consistent with the prior portion of the text, indicating that Mary used meaning to predict words.

During the study changes occurred in the percentage of Mary's errors categorized on the Laubach passages as contextually acceptable. In the second session, when Mary was first asked to read a Laubach passage, only 20 percent of her errors were categorized as contextually appropriate and 30 percent of her errors were categorized as having no contextual acceptability, indicating that she was unable to use contextual cues effectively when reading this passage. There was evidence to suggest, however, that she did attempt to use meaning to predict words. Fifty percent of her errors on this passage were categorized as partially contextually acceptable. These results, however, must be viewed with caution. Mary read this passage hesitantly and made many

multiple attempts on words. This slow rate of reading the passage and prolonged attempts on unknown words, along with the low level of word identification accuracy on this passage, 83 percent, would make it difficult to use accumulated meaning to predict words and monitor oral productions.

During the third and fourth sessions, her accuracy on Laubach passages increased to 87 percent with a corresponding increase in the percentage of her errors categorized as contextually appropriate. Thirty-two percent of her errors on these passages were categorized as contextually acceptable, while only 20 percent were categorized as having no contextual acceptability. However, the percentage of her errors categorized as contextually appropriate was still much lower than was the percentage of her errors on basal passages categorized as contextually appropriate in these sessions: 32 percent as compared to 52 percent. This percentage was also lower than was the percentage of her errors categorized as contextually appropriate on basal passages read with similar levels of word identification accuracy earlier in the study: 32 percent as compared to 50 percent.

While the discrepancy in Mary's ability to use contextual cues effectively when reading basal and Laubach passages could be attributed to a slower rate of reading and lower levels of accuracy on Laubach passages (in the second session 83 percent on Laubach and 87 percent on basal, in

the third and fourth sessions 87 percent on Laubach and 94 percent and 91 percent on basals), there was evidence to suggest that the differences in structure of these passages may also have contributed to these results.

While basal readers have been criticized for using artificial, stilted language, the language of the basal passages used in this study is much closer to natural language than is the language of the Laubach passages. The dialogue in the basal passages is less stilted and connectives are used to interrelate ideas within the passage. Few connectives are used in the Laubach passages. The 'stories' are sequences of disjointed facts using words chosen more for phonic regularity than semantic appropriateness.

Excerpt 11

Text: (from "The Dogs at the Lake" in basal reader)
 One day two dogs went out to look for some dinner.
 They looked and looked.
 But they found nothing to eat.
 "Let's go down to the lake," said the black dog.
 "We may find some dinner down there."
 So away the dogs ran.
 Soon they came to the lake.

Excerpt 12

Text: (From "The Man and the Zipper" in Laubach)
 The man is in the tent.
 The tent has a zipper.
 The man yells.
 The man's hand is in the zipper.
 The man is kicking.
 The man yells.
 The man yells to the children.
 The man yells "The Zipper! The Zipper!"

It could be argued that the basal passages had a much greater proportion of 'sight words' which Mary readily identified. While this is true, interestingly, Mary failed to read correctly sight words which she knew from her sight word lists, " such as "is", "in", and "put" on Laubach passages. For these words she substituted other sight words which were inconsistent with the text.

It is also possible that Mary's familiarity with the story structure of the basal stories aided her in the reading of these passages and the Silvaroli passages, which follow a basal reader pattern. " While this familiarity with the structure of the stories, and the words used in the stories, no doubt aided Mary in her reading of the basal passages, it is hypothesized that the structure of the Laubach passages provided insufficient syntactic and semantic cues to enable Mary to use the strategy which she had used when reading basal passages: reliance on ongoing meaning to predict words and monitor oral productions.

The graphic categorization of Mary's errors was not sensitive to changes which took place during the study in her graphic analysis strategies. Throughout the study 60 percent of her errors on both basal and Laubach passages were categorized as having high or medium graphic similarity. These errors were of two types: substitutions of

" She had successfully passed timed drills on these words.
" She had once remarked that when she reads "it's like somebody's telling me a story."

similar known sight words²² e.g. "Now" for "how", "here" for "there", "when" for "then", "they" for "then", and additions and deletions of inflectional endings, e.g. "puts" for "put", "faster" for "fast", "looked" for "look". The analysis of Mary's attempts on words and her self-reports indicated that changes did take place in her graphic analysis strategies during the study.

Three strategies were most frequently used by Mary in attempting to pronounce unknown words during the first two sessions of the study: 1) she selected the initial consonant of the target word and attempted to produce a real word which began with the same consonant sound; 2) she repeated previous portions of the text; and 3) she carefully studied the picture accompanying the text for clues. Of the 20 deliberate attempts on unknown words recorded during these sessions, selection of initial consonants was evident in seven of the attempts, repetition of previous portions of the sentence was evident in five attempts and study of the picture accompanying the text was evident in five attempts. On several occasions she used more than one of these strategies in attempting to pronounce an unknown word.

Excerpt 13 (Feb. 27)

Text: We may find some dinner down there.

Mary: We m - m - m - (long pause) - met? We - (long pause) - *may*

²² Words which she had been successfully tested on in the sight word program

Excerpt 14 (Feb. 27)

Text: The man yells.

Mary: The man - (studied picture) - The man wants? No.
(long pause) - (continued reading the next line).

Excerpt 15 (Feb. 27)

Text: See the bones under the water. Bones will make a good dinner.

Mary: See the |b| - pan? - (pause, looks at researcher)

E: Just whatever you want to say. I can't tell you the answer.

Mary: the - (long pause) - went splash. - (went on to next line) |nnn| - |bb| - |nn| - (studied picture)
Bones! will make a good dinner.

When Mary had finished reading the passage from which excerpt 15 is taken, she was asked how she had identified "bones". She confirmed that she had used the picture to help her identify the word. She also revealed that she had used the surrounding semantic context to aid in identifying the word.

Excerpt 16 (Feb. 27)

E: How did you finally get this word, bone? Remember up here you didn't know what it was and then you got it down there. Do you remember how you finally got it?

Mary: Well I just try to say them. I read this part (pointed to rest of sentence), then I go back and try. Because the teacher told me to read all of it and try to figure it out, what will fit in the story. What I did I read back and then I looked at the picture and then I figure it out.

E: Oh, you could actually see the bones in the picture.

Mary: I read them and I look at the picture. That's the way the teacher told me to do it.

While this strategy of forward sampling of semantic cues identified by Mary in the above excerpt was not observed in overt attempts on words, many long pauses were recorded during the study, and it is possible that this strategy was used during these pauses. Further, Mary sometimes paused, omitted a word, read the next few words lightly and then continued reading with a normal voice volume. Although on these occasions the omitted word was never supplied, it may well have been Mary's intention to fit it in when she could figure it out from the following context.

An observation in early February of Mary's working by herself in a phonics exercise book provided further evidence of her reliance on picture clues during the early stages of the study. She was practising oral reading of some phonically regular phrases printed under pictures. Twice she asked the researcher about unknown words. She first asked about the word "fig". She wanted to know if it was "plant" because that is what it looked like in the picture. A few moments later she inquired about "fog" remarking that it looked like "water" in the picture. However, it appeared that, although she was relying on the pictures, she was also paying enough attention to the print to suspect that her guess based on the picture was incorrect.

On seven occasions during the first two oral reading sessions in the study, Mary made no attempt to pronounce a word. She stopped, looked at the word and then immediately

said either "I don't know that word" or "Can I leave this out?". Most of the words omitted were long words such as "animals, anything, quarter".

In the last three oral reading sessions with Mary it was evident that she was attempting to make more use of graphic cues when reading and was relying less on picture clues. Of 35 recorded attempts on words during these last three sessions, use of the accompanying picture was evident on only one occasion. Attempts to make use of some of the graphic information within unknown words were evident on all first occurrences of unknown words within all passages read.

During the last oral reading session Mary confirmed that she was using pictures less frequently, and was attempting to make greater use of graphic cues.

Excerpt 17 (May 10)

E: All of the stories that we read always had pictures with them... Were the pictures of any help to you in trying to read the story?

Mary: Well before they used to help me but I don't notice them any more.

E: Oh I thought you had stopped doing that.

Mary: Yeh

E: So before how did the pictures help you? How would you use them?

Mary: I'll try to sound them out, I can't. I look at the picture and if it starts from that word(letter)

E: Now you don't use the pictures?

Mary: No, I sound them out now.

During the last three sessions with Mary she did attempt to "sound out" every unknown word on the first occurrence of the word within the passage, whereas, in the first two sessions, there were seven words for which no audible attempt to analyse the graphic information within the word was recorded. Mary had simply indicated that she did not know the word. Unknown words which were repeated within passages were sometimes omitted on the second and third occurrence of the word.

There was evidence in Mary's attempts on words during the last three sessions to suggest that she had generalized the phonogram patterns, "a" plus a consonant letter(s) and "i" plus a consonant letter(s), e.g. "am", "ick". The graphic analysis strategy which Mary used on unknown words depended upon the word. If the word was a CVC pattern word containing an "a" or an "i" as the middle vowel, then Mary attempted to make use of the initial consonant and the vowel-consonant cluster. On other words she attempted to make use only of some of the consonant letters of the target words. With these words, she always selected the initial consonant and associated the appropriate sound with it. Sometimes she also selected a consonant or consonants from the end of the word and associated appropriate sounds with those letters, e.g. |l| - |s| for "lives", |t| - |n| for "tent".

Six attempts on "a" and "i" CVC words were recorded during the last three sessions. On each attempt Mary chunked the word into the initial consonant and the vowel-consonant cluster, e.g. for "picks" she chunked it into |p| - |icks|, associated appropriate sounds with each of the units and attempted to synthesize the units into a word. However, she was not able on any of these six attempts to synthesize the units into the correct word.

Excerpt 18 (April 20)

Text: (from basal story "Taffy and the Glasses") She did not see the pink glasses in the grass.

Mary: She did not see the |p| - see the (pause) sun?
No. '' - |p| - |ink| (pronounced as "in" with |k| on the end) |p| - |ink| - I don't know that. ''

On two occasions within the same passage, Mary selected CVC patterns within multisyllable words and associated appropriate sound units to the selected visual units.

Excerpt 19 (March 30)

Text: (from Laubach, "Uncle Ted Visits Indian Valley")
Uncle Ted is visiting Indian Valley.
Fred and Van are visiting Indian Valley.
Uncle Ted puts up a tent at the river.
Uncle Ted is at the tent.
Fred and Van are at the tent.

Mary: Uncle |t -t- t| I forget that name now. (getting frustrated)

E: Ted

'' Sun is an appropriate semantic choice for glasses
'' Pink glasses were evident in the picture accompanying the text but Mary did not study the picture for clues, providing further evidence that she no longer relied on picture clues.

Mary: is |v-v-v| , is |v| - |is| - |it| store no. I don't know that.

E: You can leave it out.

Mary: Fred and Van are *visiting* Indian Village. Uncle Ted puts up a |t - t - t| no. - |t| - |n| takes, I don't know. at the |r| - |iv|. Uncle Ted is at the - It's these things that are hard. (tent) Fred and Van are at the - looked at researcher.

While Mary was unable on the six recorded attempts on "a" and "i" CVC words to synthesize the sound units into the word, evidence from observations of her working with both the teacher aide and Mrs. D. suggested that she was, at times, able to synthesize sound units provided for her into words, e.g. Mrs. D. said "g - lad" and Mary responded with "glad"; to synthesize sound units partly supplied by the teacher or teacher aide and partly by herself, e.g. Mrs. D. said "put "b" with |ar|" and Mary responded with "bar"; and to synthesize sound units which she had produced herself by chunking the word into units, e.g. for "gum" Mary said "|g - um|, gum", for "win" she said |w - in|, win". On other occasions, as in the reading of the passages, Mary was unable to synthesize the units into a word, even when the units were pronounced for her by the teacher or teacher aide.

It is hypothesized that Mary's inability to synthesize sound units into the target words on the Laubach passages was due partly to the use in these passages of CVC words unfamiliar to her, and partly to her inability to maintain a meaningful production on these passages. From observations

of Mary's reading phonic materials with the teacher aide and Mrs. D., and from comments of Mrs. D. and the teacher aide, it appeared that the meaningfulness of the target word played an important role for Mary in whether or not she could synthesize the sound units into the word. Mary was able to synthesize units for the words "gum", "win", and "kid" which are commonly used in everyday speech. Many of the words for which she was unable to synthesize sound units were words which are used infrequently in everyday speech, e.g. "cud, sup, pug, kit". For example, with the word "cud", the teacher aide said "[c] - [ud]". Mary repeated this and still could not pronounce the word. Finally Mary said "I can't say it".

On two occasions, when working on phonic materials with the teacher aide, Mary made comments which indicated that she expected the words in the material to be meaningful to her. On one occasion, when she was reading the list of rhyming words, "mug, dug, tug, bug, rug, lug", she quickly read all of the words up to "lug". She stopped and made no response for "lug". After a long pause, the teacher pronounced the word for her. Mary responded, "lug? What's that mean?" Mrs. D. had also remarked that she had noticed that Mary seemed unable to read nonsense CVC pattern words, even when they were in lists of rhyming words. Mrs. D. further remarked that she had noticed this problem before, that adult illiterates were not able to read nonsense words.

On two occasions the teacher aide remarked on the importance of meaningful material to Mary. On the first occasion, while working on lists of isolated CVC words with Mary, the teacher aide commented to Mary that she seemed to be much better with CVC words when they were in sentences. On a second occasion, following a session in late April with Mary, the teacher aide remarked to the researcher that "These stories (from Hip Readers) don't make sense. It makes it very hard for her."

"Hip Readers" were written in the 1960's for black ghetto teenagers. The stories, therefore, often contain words used in the slang sense of the beatnik jargon of the 1960's. Mary was unfamiliar with this jargon. On one occasion, Mary was observed reading a story in which the word "pad" was used to mean an apartment, e.g. "They went to Mary's pad". Mary read the sentence correctly, but stopped immediately after reading "pad" and said, "pad? pad!?". The teacher aide then explained to her the meaning of the word.

Further evidence that Mary attempted to synthesize sound units into words which were meaningful to her occurred during an oral reading session.

Excerpt 20 (March 30)

Text: (from Laubach Uncle Bob's Snake") The children are Kim and Dan.

Mary: The children are |k - k - k|, |k - im|, Kam? No.
|k - im|, |im|, Kam? No.

E: You've got the two parts.

Mary: |k - im| Came Kam? No - (very long pause)

E: Kim

Mary: Kim?

E: Have you ever heard of the name Kim before?

Mary: No

After she had finished reading the story Mary asked again about "Kim" and wanted to know whether it was a boy's name or a girl's name.

When questioned at the end of the study on strategies which she could use to identify an unknown word, Mary indicated that she would try to use the strategy which she had learned for analysing CVC words, chunking the word into units and associating sounds with the units: "I split them and then I try to say them". She was also aware that there are many words for which this strategy is inappropriate.

Excerpt 21 (May 10)

E: ... so what do you think you need to be taught now to improve your reading. What do you think the teachers need to teach you so that your reading will improve?

Mary: ... I just want them to keep going higher, like those vowels. They said there's more like two vowels and stuff like that. Some I don't know. The most is long words. I still got problems. But the short ones I just know them all.

Mary also revealed in this interview that she still sometimes used the basal reader as a reference when she read on her own.

Excerpt 22 (May 10)

E: Is there any other way that you use to figure out words?

Mary: Well I still kinda doing like look back in the stories, like this (pointed to "We Are Neighbours")

E. Unaided Recalls

During the sessions with the researcher, Mary silently read short passages from the achievement tests for the basal series in which she was reading and passages from the Laubach materials and then gave an oral recall of the passage. No changes occurred in these recalls during the study. The analysis of the recalls indicated that Mary attempted to recall all details in the passages and that she could make inferences when the material demanded it. The analysis also confirmed her reliance on pictures in the beginning of the study.

In the first session with Mary, reliance on pictures was evident in her recall of the primer passage of the Silvaroli. When she had finished reading the passage she indicated that she had found the story difficult and insisted on keeping the story in front of her to give the recall. As she had done in the oral reading during the beginning of the study, she attempted to integrate information from the picture with the information she was able to obtain from the print.

Excerpt 23 (Feb. 15)

Mary: Some of them I don't understand.

E: Ok do you

Mary: All I know is the car is washin and - pointed to the little boy in the picture - Is this Tom?

E: Ok

Mary: pointed to the picture of the man - And this is Mr. Green. He's having his car wash. And that's all I could understand. They laughed or I don't know.

Mary believed that she was expected to give all of the details of the passages in her recalls.

Excerpt 24 (May 10)

E: When I asked you to tell me about the story, what did you think that I wanted you to tell me?

Mary: Exactly what the story says.

Excerpt 25 (Feb. 27)

E: (Had observed her rereading the passage) Why did you read the story again?

Mary: I don't know, I just wanted to know for sure if I got all the words to tell you. I want to make sure I tell you everything. Sometimes I leave some words out.

On five of the six basal passages read during the study, more than 60 percent of Mary's recall was verbatim, or near verbatim, repetition, in correct sequence, of the story. The following excerpt is typical of her performance on these passages.

Excerpt 26 (Feb. 27)

Text: (from 1st. grade achievement test) Flip ran into the street and up to the sprinkler. Just then out came the water. Splash! Splash! it went all over Flip. He ran away from the sprinkler as fast as he could.

Mary's Recall: It's about a sprinkler. And Flip ran to the sprinkler. Then the water came out. It went all over Flip. And Flip ran as fast as he could away from the sprinkler.

The above passage was short enough to allow Mary to recall nearly all of the ideas in the text. When the passages were longer, as they were on the Laubach materials and some of the basal passages, she was unable to do this. However, it was still obvious that she was trying to remember every detail as these excerpts from parts of recalls indicate.

Excerpt 27 (March 30)

Text: (from 2nd. grade readiness test) "Mr. Goat" said Mr. Rabbit, "you eat all day. You eat my cabbage. You eat Mrs. Turtle's eggs. You eat Mr. Cat's fish."

Mary's Recall: ... Mr. Goat took Mr. Rabbit's cabbage. Ate it. And the cat's fish. And somebody else is in there. Turkey - his eggs.

Excerpt 28 (April 20)

Text: (from Laubach "Robert's Pet") ...Mrs. Oliver is looking for a box. She gets Robert's box. She puts apples in the box. She puts eggs in it...

Mary's Recall: ...She thought she found a box. And she put the eggs and the apples in that box. I forgot the other one..."

" There was not another one.

Mary would often forget the main characters' names and would be reluctant to begin a recall until she had the names sorted out. At the end of the study, she remarked that she had found reading the Laubach materials difficult because so many different names were used in the passages.

While Mary believed that she should tell exactly what was in the text, her recalls indicated that she was able to make inferences based on the information in the text and her own background experiences, whenever it was required by the passage, as this excerpt from part of a recall from a basal passage reveals. This particular passage was atypical of the basal passages read in that it required the student to make an inference in order to understand the story.

Excerpt 29 (April 20)

Text: Tom and Betty had a party on the farm. They put some apples by a tree. Tom said, "Let's eat the apples after we play." But, after they played, the apples were gone. A cow was next to the tree. Betty called, "Where are the apples?" "I do not know," said Tom. "But I can guess."

Mary's Recall: Well there was Tom and Betty. They were, They were picking apples. And then they said they will play first and then they'll eat the apples. And they were playing and the cow came and ate up the apples...

The majority of recall units classified as inferences occurred on Laubach passages. The structure of these passages makes it necessary for the reader to make inferences in order to understand the story. In the excerpt following, in which only the salient parts of the text and recall are included, Mary's use of her world knowledge to

attempt to make sense of the passage is evident.

Excerpt 30 (April 20)

Text: Mrs. Oliver is looking for a box. She gets Robert's box. She puts apples in the box. She puts eggs in it. Mrs. Oliver puts her hand in the box. Robert's pet is in the box! Robert's pet jumps!

Mary's Recall: ... And she was diggin in there for - putting those apples and eggs good and she - I guess she touched the snake too or something she did to the snake. Came, and she pet it or something like that. And the snake jumped up....

Throughout the study Mary never reacted to the stories she was asked to read. She recalled the information in the stories or made inferences to try to make a cohesive story. This can probably be attributed to three factors: 1) the materials she was asked to read; 2) her instruction which was also probably influenced by the materials used; and 3) her perception of the task.

Mary was asked both in the classroom and the testing situations to read passages which were not in any way related to her interests. The basal stories were written for young children and the Laubach stories, although written for adults, were basically descriptive sequences of unexciting chains of events. Further, Mary viewed the task as one of recalling as accurately and completely as possible the content of the passage. In the last session with Mary the content of the Laubach passage read silently was relevant to her own experiences. However, she still tried to recall the details of the passage. This passage was much longer than

the other passages read.

Excerpt 30 (May 10)

Text: (from Laubach, "The King Family") This is a four-page story about a woman with two small children whose husband has left her. He had left her once before and returned and has now left again. The woman doesn't know what she is going to do. The situation is similar to what happened to Mary two years ago.)

Mary's Recall: Pat. Is that her name? Pat, well when she had her first one, I think it was Jill. When she had him Jack didn't like it and he said, 'you can't support them.' But he liked Pat and and Kim? came. And then it getting worse. And he said to her "too many" or somethin. And he took off and Pat was upset. It wasn't a good spring. And Jack did come back. And Pat didn't know what to do. She love Jack too much. And Jack. Oh, Jill was four and Kim was two and that's all I can remember.

When Mary had finished telling the story she was asked if she had liked the story. She said that it was interesting and offered no further comment. Yet, she had often talked about how she had felt when her husband had left her. Further she had also reacted to newspaper articles in discussions with the researcher. It seemed that she viewed this task as telling the story, and no more.

F. Role of the Program in the Learning Process

The data presented in this chapter provide strong support for the conclusion that Mary's instructional program directly influenced the development of her text-processing strategies and of her concepts of the reading process and learning to read.

Relationship of the Program to Reading Strategies

All of Mary's reading strategies can be directly related to her instruction with Mrs. D. and the teacher aide and the practice materials she used. Further, changes in her word identification strategies coincided with changes in the focus of the word identification component of her program.

In reading classes and in individual work with Mary Mrs. D. emphasized recall of literal details of passages read. Workbook exercises which Mary completed provided further practice with recall of literal details. Mary's unaided recalls reflected this emphasis on reading for details. Her recalls were often verbatim, or near verbatim, repetitions of the content of the passage, and it was evident that she considered it important to recall all the details of passages read.

The basal reading program which Mary followed from October until the end of March emphasized use of picture clues and context clues. Further, Mrs. D. also stressed the use of these strategies when working individually with Mary. Mary's oral reading strategies at the beginning of the study indicated that she relied on picture clues and semantic context when reading. At the beginning of the study it was also evident that she attempted to make use of beginning consonant letters when reading, a strategy which she had been taught in phonics classes during first term and which had been reinforced through workbook exercises.

A further strategy, of using the completed basal readers as a reference book for words, which Mary used when reading by herself, was also a strategy which had been suggested to her by Mrs. D. It appeared that Mary adopted all strategies suggested to her, and she, in fact, believed this. She once remarked, "What they teach me I know".

During the last half of the study, an increased emphasis on phonics skills occurred in Mary's program, with a corresponding decrease in time spent working in the basal reading program. During sessions with the teacher aide Mary worked on phonics skills rather than on the basal reader. There was a corresponding change in Mary's word identification strategies during this time period. She moved away from a reliance on picture clues when reading and attempted to process more of the graphic information within words than she had at the beginning of the study. Further, when it was appropriate to the word, she attempted to apply the phonic analysis strategy that the teacher aide emphasized when working with her, i.e. chunk the word into the initial consonant and final phonogram, associate appropriate sound units to the chunked units, and synthesize the sound units into the word.

Mary had been taught this phonics analysis strategy of chunking words into initial consonants and final phonograms in Mrs. D.'s phonics classes during February and early March, but only after Mary began working on phonics with the teacher aide did she attempt to use this strategy during

oral reading sessions with the researcher. It is suspected that Mary's use of the strategy following work with the teacher aide was due not only to the extra practice in the skill which this work provided, but also to a change in the reading-in-context practice materials which Mary used during this period of the study.

In February and early March, Mary worked on "short a" and "short i" CVC words in phonics class. During this time the only connected discourse which she read outside of group reading classes was the first grade basal reader, "On Cherry Street". This reader contains few words on which Mary could apply the phonic strategy which she was learning. In her work with the tutor aide during the last half of the study, Mary practised reading phonically regular stories. She also often practised these stories at home. Further, during this period, Mrs. D. introduced her to supplementary children's books, which although they were not phonically regular materials, did contain many CVC words on which Mary could practise her new phonic skills. It is thus hypothesized that repeated successful application of these phonic analysis strategies on these materials, encouraged Mary to adopt this strategy. As is evident in excerpt 21, by the end of the study Mary was convinced that chunking words into sound units and synthesizing these units into words was a very useful reading strategy. She was anxious to learn more grapheme-phoneme relationships.

Relationship of the Program to Concepts of Reading

When Mary first entered the program at NBCC she viewed reading as a mechanical process of blending the sounds of letters into words. She believed that if she learned the sounds of the letters then she would be able to read. At the end of the study, she still expressed the view that "sounding out" words was key to reading, but her reading behaviour and self-reports on strategies during the study indicated that she viewed reading as an interactive process in which she used her world and language knowledge and the graphic and semantic information on the page to obtain meaning. The development of this broader concept of the reading process may be attributed to the focus on comprehension and the use of context clues in the basal reading program and to Mrs. D.'s reinforcement of this emphasis in her work with Mary.

Mary's program also contained a strong emphasis on phonic analysis skills. This emphasis reinforced Mary's concept of the importance of learning sound-symbol relationships in learning to read. As a result, more than any other aspect of the program, the learning of new sound-symbol relationships seemed to provide concrete evidence for Mary of success in the program. All of her "highs", days on which she remarked to the researcher that it was "getting easier" or that she felt that her "reading (was) improving", occurred in reaction to learning to apply a phonic generalization.

Relationship of the Program to Mary's Achievement

While both Mary and her teachers believed that her reading had improved during the term, and while the data collected during the study indicated that significant changes had occurred in her reading strategies during the study, neither the standardized reading test used by the teachers nor the standardized reading test used by the researcher was sensitive to changes in her reading behaviour. No significant changes occurred in Mary's scores on these tests from the beginning of the study to the end of the study. She scored a grade score of 1.7 on both the vocabulary and comprehension sections of the Gates-MacGinitie test in both January and April. On the WRAT reading subtest she scored a grade score of 1.7 in January and a grade score of 2.0 in May.

Yet, Mary was not discouraged by these results. She knew she had learned something "cause first when I came here I didn't know *nothing*". And now when she signs her own name and address on forms, and "when I write it myself or read it myself it feels good and I can say I know that".

G. Mary's Perceptions of the Program

Mary was pleased with the program and felt comfortable with the pace of instruction. When asked about each of the components of the program at the end of the study, she indicated that she liked them all. "She's not fussy." She just wanted to learn to read and she was confident that this

program was doing a good job of teaching her to read.

Excerpt 32 (May 10)

E: ... how do you feel about the program you're in here?
What do you like about it, what don't you like about it?

Mary: Well, I like the way it goes. I mean I like the way they teach us and I like moving further... up... Like knowing everything cause when I first came here I didn't know what to do and now I know what to do and what to work on. I like the work and it's easy and once a week it goes higher. ... I like the way they teach. I'm not fussy about it. And what they teach me I know."

VI. Summary and Discussion of the Findings

The purpose of this study was to provide insights into the adult literacy learning process from the perspective of the discipline of reading. Four adults enrolled in a basic literacy program were studied over a period of three and one half months. In order to characterize the learning to read process for these adults as fully as possible the researcher assumed the role of a participant observer in the classroom and observed from a number of perspectives the subjects and the instructional program in which they participated.

The findings from the study are summarized in this chapter. As well, this chapter addresses the question raised in chapter I regarding the relevance of reading theory and practice and adult learning theory to adult literacy instruction in light of the findings from this study. Insights from this study regarding the study of the reading process are also presented.

Three exploratory questions guided the collection of data in this study.

1. What reading strategies do adults participating in a beginning literacy program use?

a) Do these strategies change during the program?

b) Is there a relationship between change or lack of change in the reading strategies and the instructional program?

c) Is there a relationship between change or lack of change in the reading strategies of these adults and factors

outside of the instructional program?

2. What are the perceptions of reading and learning to read of adults enrolled in a beginning literacy program? .

3. Why do adults enroll in beginning literacy programs?

The open-ended questioning strategies and prolonged observation techniques used in this study allowed for the emergence of findings which were not anticipated in the original research questions. The additional findings do not, however, exhaust the identification of factors operating in the adult literacy learning process. Affective factors were explored only peripherally in this study and little attempt was made to study the social impact of the program on the daily lives of the subjects. The summary of the findings is organized in such a way as to respond to the intents of the original questions as well as to allow for the presentation of all findings which emerged in the study.

A. Summary of the Findings

Subjects and Their Reasons for Enrolling in the Program

There was diversity in the subjects' personalities, backgrounds and present life situations. The subjects' stated reasons for enrolling in the program mirrored this diversity. Each subject shared some elements of another subject's background and/or reasons for enrolling in the program, but for each subject the combination of elements was unique.

Karen, 16, and Lisa, 17, the two youngest subjects, enrolled in the program primarily for job related educational reasons. This upgrading program would allow them to obtain the necessary grade equivalents required to enter their chosen training programs.

For Karen, who had lived an isolated life centred around her family, and who had never participated in a group formal learning situation, getting the education which she had been denied was her sole reason for entering the program. She expressed none of the personal or social concerns verbalized by other subjects. She was confident that she could learn if given the opportunity and she was prepared to spend as much time as necessary to obtain the education which she desired.

Lisa, on the other hand, had experienced failure in the public education system and was less confident than was Karen about her ability to learn. She had also experienced feelings of uneasiness with her low literacy skills in social interactions with family and friends. She saw the program as enabling her to function more effectively in social situations as well as to get a job. Lisa had, however, experienced successes in other areas of life and she did not attribute strong feelings of inferiority to her low level of reading ability as did Bob and Mary.

While Lisa and Karen entered the program primarily for job related reasons, Mary's and Bob's reasons for entering the program were personal and social. Like Lisa and Mary,

Bob, aged 35, was a failure of the public education system. Unlike Lisa, he had also had many unsuccessful life experiences since leaving school. He entered the program at a time when he was attempting to turn his life around. He had given up his alcoholic lifestyle seven months prior to enrolling in the program and he was attempting to be a better father to his six year old son. His main reasons for entering the program were personal and social: to improve his self-image, to "feel better about himself", and to participate fully in groups, particularly those related to his son's activities such as minor hockey. He had a job and felt that improving his literacy skills might allow him to get a better job. For the moment, however, potential personal and social outcomes from improved literacy skills were more important to him than were improved job opportunities.

Mary, like Bob, did not consider her stated job goal as the most important reason for participating in the program. Personal self-image was predominant in Mary's motives for participating in the program and it played a role in her persistence in the program. As a single parent, with four young children, totally dependent upon social assistance, Mary was constantly confronted with the written word in her contacts with stores, banks, schools and government agencies. She was angry with the dependency which her illiteracy created in these situations and she was angry with the image of herself which she felt her illiteracy

projected in these situations: a "dummy". She felt powerless in the literate world in which she lived. For Mary literacy was the key to gaining control over her life. Like Karen she was prepared to spend as long as it would take to acquire the skills which would give her this control.

Subjects' Expectations of the Program

While the subjects varied in their reasons for participating in the program, they all had realistic expectations for what they could accomplish in one term in a literacy program. Bob and Lisa clearly differentiated between short term goals and long range goals. Bob hoped to achieve a gain of two grade levels, a level which he anticipated would enable him to continue learning through correspondence courses or night classes. Lisa hoped to reach a grade six level of achievement which would enable her to enroll in a health care aide program. She ultimately wished to enroll in a nurse's aide program, which required a grade ten level of achievement, but she had modified this goal, in her mind only temporarily, through counselling upon entry into the upgrading program.

Karen and Mary both viewed the term as first steps toward long range goals. They had set no definite benchmarks to be achieved during the term. For Karen this term was the first term in her formal education which would lead ultimately to enrollment in a business training course. For Mary the term was the second of many terms which she perceived would be required to bring her to a satisfactory

level of literacy skill. She spoke of reaching a grade six or seven level of literacy, a goal which the institution had identified for her.

Subjects' Concepts of Reading and Learning to Read

In response to the direct question "Why do people read?" Mary, the subject with the lowest level of reading skill, verbalized the most inclusive concept of the value of reading. Her response indicated an awareness of reading as a leisure activity, as an informative medium for self-learning and as an important means for social communication. Bob and Lisa also identified personal enjoyment and self-learning as reasons why people read. Karen, perhaps reflecting her limited experiences, identified only one use of reading, as a leisure activity, the way in which she used reading herself.

Subjects' responses to direct questions regarding reading strategies and their self reports indicated that they believed that graphophonic knowledge was key to the reading process and to learning to read. Some of the subjects identified thinking as important in the reading process. All subjects indicated an awareness of the value of using semantic context as a reading strategy and some subjects even acknowledged using context as their preferred strategy. However, all subjects always identified "sounding it out" as the first strategy to be used to identify unfamiliar words. Further, Bob, Lisa and Mary, both in response to direct questions and in self reports, indicated

that they strongly believed that increased graphophonic knowledge would solve their reading problems. They seemed to assume that as soon as they had mastered all of the sound/symbol generalizations, they would be able to read anything. Karen, on the other hand, never expressed definite views on her reading instruction. Unlike the other three subjects she had experienced no past failing experiences with learning to read. She perhaps did not perceive herself as having a reading problem to be reflected upon and solved.

The instructional program was consistent with and thus reinforced the subjects' concepts of reading and learning to read. The major emphasis of the reading component of the instructional program was the development of word identification skills. The reading strategy consistently and almost solely emphasized in the program was "sound it out", particularly in the program of Bob, Lisa and Karen.

Subjects' Reading Strategies and Factors Influencing These Strategies

As the subjects differed in their backgrounds and reasons for entering the program they differed also in the reading strategies which they used. Karen, Lisa and Bob had achieved identical grade equivalent scores of 3-6 on the comprehension section of the Gates-MacGinitie Reading Test. Yet these subjects showed great variation in the reading strategies which they used at the beginning of the study.

Although these three subjects made achievement score gains during the study, the instructional program had little

influence on their reading strategies and few changes occurred in their reading strategies during the study. Differences in background knowledge and perceptions of the tasks partially accounted for the variation in the reading strategies of these three subjects.

While the instructional program had little influence on the reading strategies of Bob, Karen and Lisa, a strong relationship between the instructional program and the reading strategies and concepts of reading for the beginning reader, Mary, was evident. All of the reading strategies which she used at the beginning of the study, the changes which occurred in her reading strategies during the study and her concepts of reading could be attributed to the content of her instructional program, the reading materials, the skills exercises, and the teacher statements and modelling behaviours.

While Bob, Lisa and Karen all expressed an awareness of the potential usefulness of graphic and contextual information in the reading process, and while in the oral reading tasks of the initial reading strategy session there was evidence that they used graphic information and contextual information in their own reading, they varied in the extent to which they relied on these two information sources in the reading process. Bob relied more strongly on contextual information while Lisa and Karen particularly relied more strongly on graphic information. Bob's strong reliance on contextual information, despite a professed

belief that reliance on graphic information was key to the reading process, was attributed to inadequate knowledge of graphophonic relationships. Karen's strong reliance on graphic information was attributed to inadequate semantic and world knowledge. It was further hypothesized that inadequate semantic and world knowledge had influenced the development of Karen's strategy of reliance on graphic information since Karen had primarily taught herself to read. Lisa's observed reliance on graphic information to identify unfamiliar words, despite verbal self reports that she relied first on contextual information then graphic information, was attributed to her general concern with accurate oral reading and her perception of oral reading as an oral reading performance task.

Few changes occurred in the oral reading strategies of these three subjects during the study. Bob and Lisa did show increased proficiency in analysing graphic information within words. This increased proficiency was attributed to direct instruction in word identification skills in the program, emphasis on careful analysis of graphic analysis as a reading strategy, and teacher modelling of graphic analysis strategies. No changes occurred in Karen's oral reading strategies. This lack of change in Karen's oral reading strategies was attributed to a mismatch between instructional needs for Karen as identified within the theoretical framework of this study and the instructional program.

Despite a strong and almost exclusive emphasis in the program of Bob, Lisa and Karen on "sounding it out" as a reading strategy, these three subjects continued to use the strategies which they had used when they entered the program. They continued to rely on contextual information as well as graphic information and to identify the use of contextual information as a useful reading strategy.

These three subjects also differed in their performance on recall tasks. Differences occurred in the content of their text recalls and in the strategies which they used to recall text. Bob accurately recalled main ideas and many supporting details of both narrative and informational passages, and he varied his strategy according to text type. His recalls and self reports indicated that he used the paragraph structure of informational passages to organize the information for recall and that he used his well developed knowledge of narrative text structures to organize the information from the narrative passages for recall.

Lisa was concerned with accurate recall of text details, particularly proper names, place names, numbers and dates. She often skimmed passages prior to giving her recall to check on such details, and she appeared to try to organize her recalls of both narrative and informational passages around these details. A well developed knowledge of narrative structure was also evident in her recalls. Thus her recalls of narrative passages, and at times her recalls of informational passages, were plausible complete stories

containing many text details. The details, however, were often reorganized in ways inconsistent with the text.

Karen recalled much less of the content of the passages than did either Lisa or Bob. Her recalls of narrative passages were more detailed than were her recalls of informational passages and they indicated a partially developed sense of story, but less well developed than that of Lisa or Bob. She often omitted significant episodes in her recalls of narrative passages. She did not consistently use one strategy for recalling informational passages, sometimes recalling only the main theme of the passage and at other times recalling two or three details of the passage.

Little emphasis was placed on comprehension in the reading program of these three subjects. No direct teaching of comprehension strategies was observed during the study. Comprehension practice activities consisted of multiple choice questions which emphasized recall of literal information and main ideas. These comprehension activities may have reinforced Lisa's concept that recall of details is important and, along with practice on the recall task, may have contributed to the increased length of Karen's recalls during the study, but they had little effect on any of the subjects' overall performance on recall tasks. No changes occurred during the study in the nature of the content of the subjects' recalls nor in the strategies they used to recall passages.

Mary, the beginning reader, used a variety of strategies during the study to identify words, including use of contextual information, graphic information, picture clues and rereading of problem words in familiar contexts. The extent to which she used each of these strategies was influenced by the material which she was asked to read, by the context of the reading situation and by the content of her instructional program.

The extent to which Mary used contextual information varied with the type of material which she read. Passages from the basal readers produced higher proportions of errors categorized as contextually consistent than did passages from the Laubach adult literacy program. These differences were attributed to differences in structure between the two types of passages. Use of completed basal readers as a reference for identifying unfamiliar words was a strategy which Mary used only when reading by herself.

The pattern of strategies which Mary used in oral reading sessions varied throughout the study, a variation which was attributed to the changing content of her instructional program. In the early stages of the study, she relied on initial graphic cues, contextual information and picture clues to identify unfamiliar words. In the latter part of the study, while she continued to rely on contextual information, she relied less on picture clues and more on graphic information. This change was attributed to her increased knowledge of graphophonic relationships and

increased ability to apply this knowledge to identify words. This increased proficiency in using graphic information was attributed to a shift in emphasis in her program from basal readers to intensive, direct instruction in sound/symbol relationships and graphic analysis strategies.

Mary's instructional program emphasized recall of literal details. Her perception of the recall task and her performance on these tasks reflected this emphasis. She attempted to recall all text details and her recalls, particularly her recalls of short passages, contained large proportions of verbatim, or near verbatim, repetitions of the text. She did, however, include in her recalls appropriate inferences based on text information and her background knowledge when the text structure demanded such inferences. The majority of inferences occurred in recalls of the passages from the Laubach adult literacy program. This difference in inferencing behaviour on the two passage types, basal and Laubach, was attributed to differences in structure between the two passage types.

Subjects' Perceptions of the Program

All subjects were positive about their experiences in the program. They felt that their reading skills were improving as a result of their participation in the program. For Bob, Lisa and Karen, increased grade equivalent scores provided concrete support for this perception of improved reading ability. For Mary, continued progress through readers and worksheets seemed to provide evidence for her of

increased ability, despite a lack of grade score gains on testing conducted during the study. As well, for Bob, Lisa and Mary, increased self-confidence was an added important benefit from participation in the program.

Bob, Lisa and Karen attributed their success in the program to the reading practice which the individualized program provided, particularly the writing component of this program, and to the extensive phonics instruction. Mary did not identify any one component of her program as more beneficial than another. She liked the whole program and felt that it was doing a good job of teaching her to read.

All of the subjects viewed the learning environment of the program positively, particularly the individualized aspect of the learning environment. The individualized component of the program allowed for self-pacing and individual attention, two factors consistently mentioned by the subjects in their appraisal of the program. For Bob and Lisa, particularly, the learning environment seemed a welcome change from past school experiences.

Teachers' Perceptions of the Program

The teachers' perceptions of the valuable aspects of the program were consistent with the subjects' perceptions of the program. The teachers also identified the individualized component of the program and the phonics instruction as contributing to the grade score gains of Bob, Lisa and Karen. Two of the teachers, Mrs. M. and Mrs. D., had taught this program together for the past six years and

noted that the change the previous November to the individualized program had resulted in larger grade score gains in students than had occurred in previous years. Like the students, they attributed these gains to the amount of independent reading which the individualized program demanded of students and to the instruction in phonics.

The teachers also often commented on the increased self-confidence of Lisa and particularly of Mary. Mrs. M. and Mrs. D., who had worked with Mary since her enrollment in the program the previous September, often commented on the dramatic changes in Mary's self-confidence and independence.

Self-Direction

All subjects assumed an active role in their learning. They engaged in unassigned, self-selected reading activities outside the reading program, but they varied in the activities which they chose and in their reasons for choosing the activities. Bob and Karen worked on worksheets from the individualized component of the program in order to "get ahead". Lisa practised oral reading because she wished to improve her oral reading performance; Mary practised reading from basal readers and children's books recommended to her by the teachers because the teachers had convinced her that practice was important.

Karen also continued to read to pass the time, a habit which she had established before enrolling in the program. She read western novels, magazines and newspapers. Lisa and

Mary also read selected portions of the newspaper.

During the study each of the subjects initiated a self teaching activity. Bob attempted to teach himself how to use a dictionary; Karen attempted to teach herself how to type from a book borrowed from the school library; Lisa attempted to teach herself medical terms from a nurse's aide text which she borrowed from the school library; and Mary developed strategies to teach herself new words encountered in her independent reading.

B. The Findings and the Field of Reading

The authors of *The World of Literacy* concluded that little of the research on children's literacy learning is directly applicable to adults' literacy learning. The findings from this study cannot address this question of relevance in its entirety for there is a large body of literature on various aspects of children's literacy learning and this study focused on only one of those aspects, reading strategies. A comparison of the findings from this study on adult reading strategies and the literature on children's reading strategies indicates both similarities and important differences between the reading strategies of children and adults who are learning to read.

The Findings and Studies of Children Identified as Poor Readers

Poor readers have been characterized in the literature as a homogeneous group, alike in their reading strategies

and differing from good readers with respect to their use of semantic information in the reading process (Goodman and Burke, 1973; Rousch and Cambourne, 1979); with respect to their correction behaviour in the reading process (Rousch and Cambourne, 1979; Clay, 1966); and with respect to their inferencing behaviour in the reading process (Tierney, Bridge and Cera, 1979). As well they differ from good readers in the amount of information produced in recall tasks (Meyer, 1977) and types of information produced in recall tasks (Drum & Lantaff, 1977).

The adult readers in this study differed in many ways from the literature characterization of children who are poor readers. They were not homogeneous in their reading strategies; rather they showed great variation. While they did use some reading strategies typical of poor readers, they also used reading strategies typical of good readers. Bob's strong use of contextual information and his correction behaviour are typical of the good reader rather than of the poor reader. Lisa also used a correction behaviour pattern identified by Rousch and Cambourne as characteristic of good readers. Mary's inclusion of causal inferences in her recalls is typical of the inferencing behaviour of the good third grade readers in the Tierney et al. study rather than the poor readers in that study.

While Karen seemed to best match the portrayal of the poor reader in the literature, a major factor differentiated her from the literature description of poor readers. Both

Goodman and Burke(1973) and Rousch and Cambourne(1979) concluded that inadequate background knowledge was not a contributing factor in the failure of the poor readers in their studies to use semantic information effectively in the reading process. Yet, in this study inadequate background knowledge was identified as a key factor which had contributed to the development of Karen's reading strategies and which continued to inhibit her ability to use semantic information effectively in the reading process.

The majority of adults who enroll in literacy programs have some degree of reading skill. The findings of this study suggest that to develop reading programs for adult illiterates based upon a model of the illiterate as a poor reader would be inappropriate. Rather, the variation in reading strategies of adult illiterates emerges as a potentially significant factor which must be accounted for in developing basic literacy programs. Data on much larger samples of subjects are needed to determine the extent of this variation and possible patterns of variation.

The Findings and Beginning Reading Strategies

Many differences were identified between the findings on the reading strategies of Bob, Lisa and Karen and the literature on children in similar stages of learning to read. However, many similarities are evident between the findings of the case study of Mary, the beginning reader, and the literature on children's beginning reading strategies. She made use of graphic, contextual and

pictorial cues in the reading process as did the beginning readers in MacKinnon's study(1959). Further her development appeared to parallel the development identified by Biemiller(1970) in his study of grade one children learning to read. At the beginning of the study Mary exhibited reading behaviour typical of Biemiller's second stage, the non-response stage. She often made no attempt to decode words, indicating instead that she did not know the word. Biemiller suggested that this strategy indicates increased attention to the print. During the latter part of the study, her behaviour was consistent with behaviour identified by Biemiller as characteristic of the third stage, that is, fewer non-responses to words and increased efforts to use both graphic and contextual information.

Biemiller's study, conducted in the mid 1960's, reported that his subjects followed a basal reading program. From the beginning of September until March the core component of Mary's instructional program was a basal reading program, typical of basal reading programs used in the mid 1960's. While Mary's non-response phase could be seen as a result of instruction in the basal reader, her shift from the non-response stage to the stage of integration of graphic and contextual information occurred as a result of direct, intensive instruction in graphophonic relations. Not all of the subjects in Biemiller's study reached this third stage of integration during his one year study. Further, Biemiller did not identify any particular

aspect of the instructional program as contributing to a shift in stages. Rather he hypothesized that the shift was due to increased mastery of graphic information which occurred "as a result of attending carefully to words over a period of time" and which resulted in increased "efficiency of letter feature identification, and in the use of structural relationships between letters" (1970, p.94).

The finding in this study of a strong relationship between the instructional program and the development of reading strategies was consistent with the findings of Barr (1975), Lopardo (1977) and MacKinnon (1959). MacKinnon, Lopardo and Barr all studied the influence of reading method, e.g. sight word, phonic, controlled sentence method, on the development of reading strategies. Lopardo, while focusing on reading method in her study, noted that the materials used in testing sessions also seemed to influence subjects' strategies independent of method. She hypothesized that materials as well as method play a role in the development of reading strategies.

The findings from the case study of Mary provide support for Lopardo's conclusion that materials as well as method play a role in the development of reading strategies. As well, the data from the case study of Mary suggest that teacher statements about potential reading strategies, an aspect of the instructional program not directly investigated by the other researchers, can also play a significant role in the development of reading strategies in

the adult beginning reader.

The data from the case study of Mary also suggest that the development of reading strategies in adult beginning readers is the result of a complex interaction of instructional method, practice materials and teacher statements. Numerous diverse approaches are currently used to teach adults in the beginning stages of learning to read. These approaches include the reader and workbook approach used by National Affiliation for Literacy Advance (Laubach), the language experience approach used by Literacy Volunteers of America and functional approaches. These approaches vary not only in the types of materials used but also in the reading methodologies employed. Reading methodologies employed vary within approaches as well as across approaches, particularly within the functional approach.

While there are many opinions in the literature on the relative merits of these approaches, few research studies have compared the effectiveness of these approaches. Further, both the studies and opinions have focused on the measured and hypothesized psychological, socioeconomic and reading achievement outcomes of these approaches. Comparative studies of the influence of the materials used in these approaches, and of the teaching techniques used by teachers and tutors within these approaches on the development of reading strategies in adult beginning readers would add a much needed dimension to the literature on adult beginning reading.

Use of Picture Clues as a Beginning Reading Strategy

Much controversy exists in the literature over the use of pictures in the teaching of beginning reading. Samuels(1968) and Biemiller(1970) advocate that beginning readers be discouraged from using picture clues because such a reliance allows beginning readers to avoid the graphic information and thus inhibits the development of the beginning reader's use of graphic information in the reading process. In contrast, Denburg(1977) suggests that picture clues encourage the beginning reader to use the limited graphic knowledge which they possess, which by itself would be inadequate for word identification. She also hypothesized that the use of picture clues as a reading strategy enhances the development of the mature reading strategy of integration of graphic and contextual information.

The use of picture clues in this study by Mary, the beginning reader, provides some support for the conclusions of Denburg. During the first part of the study Mary used picture clues to aid in word identification, but she never relied solely on the pictures. She always attempted to integrate this information with other contextual information and with the graphic information which she was able to use, the consonant letters. As Mary's knowledge of graphophonic relationships increased her use of picture clues decreased. The pictures did not seem to inhibit the development of graphic knowledge, but rather served as an additional source of information until she became more proficient in the use

of graphic information. In short picture clues gave her greater independence in the early stages of learning to read. Whether or not they encouraged the development of the integration of graphic and contextual information could not be determined from the data.

Mary's use of picture clues, however, and changes in her use of picture clues were interrelated with other instructional variables. Mary moved away from reliance on picture clues as she gained greater proficiency in using graphic information. This increased proficiency resulted from direct instruction in graphophonic relationships. Different instructional circumstances might have produced a different pattern of use of picture clues.

The findings of this study suggest that the influence of pictures on the development of reading strategies may depend as much on instructional aspects of the reading program, such as the teaching or lack of teaching of graphophonic relationships, as upon the presence of pictures. The findings also suggest that the question of the use of pictures in beginning reading instruction cannot be considered in isolation from the total instructional context.

C. Studying the Learning to Read Process

This study used clinical reading techniques and a research methodology not used previously in long term studies of the learning to read process of children. Because

these techniques were used with adult subjects; the reader is cautioned about drawing direct implications for the study of the learning to read process in children. Nevertheless the insights gained may be useful to those who wish to study the learning to read processes of children as well as of adults.

Techniques for the Study of Reading Strategies

In-depth studies of the strategies used by children learning to read (Biemiller, 1970; Clay, 1966; Goodman, 1967; Weber, 1970) relied primarily upon observation of the children in oral reading situations and analyses of the children's oral reading errors.¹ Questioning was sometimes used to assess the children's concepts of reading. In this study analyses of subjects' unaided recalls of passages read silently, subjects' self-reports and subjects' responses to probe questions, as well as observations of subjects during oral reading sessions and analyses of subjects' oral reading errors were used to gain insights into subjects' reading strategies. All techniques were useful in providing insights into the reading strategies of these adult subjects and were sensitive to detecting differences in reading strategies of the subjects.

The oral reading tasks and silent reading tasks were complementary in the sense that they allowed for insights

¹ Goodman included analysis of unaided recalls in her study. However, her report and particularly the conclusions of the study focus primarily on the results of the data from the analysis of the oral reading errors.

into different aspects of the reading process. Within each of these task settings the use of subjects' self-reports and subjects' responses to retrospective questions allowed for confirmation of inferred subjects' strategies, clarification of conflicting data and additional insights into strategies, thus contributing to the strength of the data and in turn to the strength of the conclusions.

The techniques used to infer strategies from oral reading tasks provided rich data. Most studies of children's reading strategies reported in the literature, particularly studies of children beyond the grade one level of reading, rely almost exclusively upon categorization systems similar to Goodman's miscue analysis to make inferences about children's reading strategies. The data from this study suggest that reliance solely on a miscue categorization system can result in an oversimplification of the phenomena and omission of much valuable information. The oral reading error analysis system, modelled on miscue categorization systems, was useful in providing insights into the subjects' use of contextual information in the reading process and in providing insights into the relative extent to which subjects relied upon graphic and contextual information in the reading process. However, the observations of subjects, analyses of their attempts on words and subjects' self-reports and responses to probe questions provided additional information into their strategies for using graphic information within words and changes in these

strategies across time. In addition, particularly in the case of the beginning reader, these data allowed for the identification of reading strategies not included in the oral reading error categorization system. The combination of techniques allowed for a more comprehensive picture of the developing reading strategies of these adult readers.

In the literature, recall tasks have been used to explore the reading processes of groups of subjects and to explore processing differences between groups of subjects of different grade and ability levels. In this study recall tasks and subject responses to retrospective questions regarding their behaviour during these tasks were used to explore the processing strategies of individual subjects. This reliance on one type of comprehension task to obtain data on reading strategies of individual subjects across time created problems which had not been evident in group studies and the resulting data were somewhat disappointing. For one of the subjects, Karen, these two techniques, recalls and responses to retrospective questions, provided few insights into her reading strategies. She gave short recalls and her responses to retrospective processing questions provided few insights into her reading strategies during these tasks.

While the data from silent reading tasks for the other three subjects were much richer than were the data for Karen, the data were not as rich nor as conclusive as were the data from oral reading tasks for these same subjects.

Their responses to retrospective questions regarding their silent reading and recall strategies provided fewer insights into their reading process than did their responses to retrospective questions regarding their oral reading strategies. This difference may have been due to poorly worded questions and/or subjects' lack of awareness of strategies used during these tasks and/or their inability to explain the strategies used during these sessions.

The use of retrospective questions and verbal self reports contributed much to the richness of the data on the reading strategies of the subjects in this study. Reliance on retrospective questioning and verbal self reports may not be as useful in a study of children's reading strategies because of differences in levels of self awareness between children, particularly children in the primary grades, and adults. It may be necessary with young children to provide more structured tasks in order to gain additional insights into their reading strategies.

Influence of Text and Task Perceptions on Subjects' Reading Strategies

Most of the information on children's reading strategies beyond grade one level has come from experiments in which children's oral reading errors or unaided recalls, obtained from the reading of small numbers of passages of one type, are analysed to make inferences regarding the children's reading strategies. The data from this study suggest that results of such studies should be interpreted

with caution. The data from this study suggest that the type of text and the subjects' perceptions of the task may influence the subjects' performance on the task and thus the inferences regarding reading strategies which are drawn and which can be drawn from these tasks.

Spiro(1975, 1977) suggested that unaided recall tasks are perceived by subjects as one-shot "learning from text" tasks. The subjects in this study had exactly this perception of the recall tasks. The narrative passages read by Bob, Lisa and Karen during the study included introductory purpose questions which invited a personal response to the passage. Only Lisa ever responded to these questions in her recalls and she did not do so consistently. As well, on one occasion Mary read a passage directly related to her own life experiences; yet her recall included no acknowledgment of this relationship.

The influence of text on reading strategies varied among the subjects and was most evident in the strategies of Mary, the beginning reader. Both types of passages, basal and Laubach, used with Mary were narrative in that they contained sequences of events centred around character actions. However, there were significant differences between the two types of passages in the numbers of errors categorized as contextually appropriate and in inferencing behaviour. Fewer errors on the Laubach passages were categorized as contextually appropriate than on the basal passages. Higher numbers of inferences occurred in the

recalls of Laubach passages than, in the recalls of basal passages. These strategy differences on the two types of passages were attributed to differences between the two types of passages in cohesiveness and language. The language of the basal reader passages was much closer to natural language than was the language of the Laubach passages, both in respect to dialogue of the characters and choice of words. As well, the story events in the basal passages were explicitly linked through the use of connecting words such as soon, next, then; whereas few linking words were used in the Laubach passages.

Differences in inferencing behaviour of children of similar age levels on different passages is also evident in the discourse literature. Stein and Glenn (1978), who used natural passages (passages from commercial reading programs) reported more inferences in their study of children's recalls than did Mandler and Johnson (1977), who used artificial passages (passages created for the task). The differences between the results of these two studies may be due to differences in the degree of explicitness of the two passages. In other words, the data from this study and the results of the Stein and Glenn and Mandler and Johnson studies suggest that the amount of inferencing observed in a recall task will be influenced by the amount of inferencing which the passage demands of the reader.

Bob, Lisa and Karen all reported that they found the narrative passages easier to read and recall than the

informational passages. However, the extent to which these expressed differences were reflected in subject performance varied. For Bob, no overall differences occurred in his performance on the two types of passages. With Lisa, some differences occurred in the categorization of oral reading errors on the two types of passages, but no differences occurred in correction behaviour. The greatest differences in performance on the two types of passages occurred in the data on Karen. There were differences in Karen's use of contextual information on the two passage types, and differences in the amount of text recalled for the two types of passages. More errors were categorized as contextually appropriate on the narrative passages than on the informational passages. She recalled much more of the content of the narrative passages than of the informational passages.

While the passages were labelled narrative and informational, the differences among subjects' performance on these passages could not be attributed solely to differences in structure. Content differences also played a role. The narrative passages were easier for subjects partly because the content was, as Lisa expressed it, more like "everyday" events.

Even within the informational passages there was some evidence that familiarity with content played a role in subjects' reading performance on these passages. For Bob, particularly, grade level of a selected informational

passage, as determined by a Fry readability formula, was not a good predictor of the ease with which he could read the passage. Because Bob relied strongly on his background knowledge and contextual cues in the text, the ease with which he read informational passages was partly determined by his familiarity with the topic of the passage. To a lesser extent Lisa's performance was influenced by familiarity with the content of informational passages. Karen, who relied strongly on graphic cues was the least influenced by differences in the content of the informational passages, although even with Karen one of the few self-reports of use of contextual information occurred after reading an informational passage on a topic about which she possessed much background knowledge, gardening.

Other researchers (Kintsch et al., 1977; Thorndyke, 1977) have also noted differences in individual subject performances on informational passages which they attributed to familiarity with content. The extent to which a passage is familiar to a subject is idiosyncratic and related to the subject's background knowledge, a factor consistently identified in the discourse literature as a key component required in the reading process. The data from this study reviewed in the above paragraphs, particularly the data from the case study of Karen, suggest that background knowledge is an important factor to be considered in the assessment of reading strategies.

In future research, a number of additional tasks, each chosen to complement the other tasks, might provide richer data on the more global aspects of the reading process which recall tasks such as those used in this study attempt to measure. Such research techniques might include the setting of different purposes for recall tasks, open-ended probe questions to follow up subjects' recalls, the use of both natural texts and artificial texts, and the probing of subjects during reading of passages.

Participant Observation as a Research Technique

The assumption by the researcher of the role of a participant observer in the research setting was a powerful research technique. It afforded an opportunity to study concurrently aspects of the learning to read process usually studied in isolation. The technique allowed for the identification of relationships between content factors and the development of reading strategies. As well, the technique allowed for the emergence of new insights into the roles of contextual and affective factors in the adult literacy learning process.

The use of participant observation techniques in studies of children's literacy learning could provide a fresh look at the learning to read process of children. As discussed earlier, readers are cautioned that reliance on verbal responses to retrospective questions may be a problem with young children as it was with one of the subjects in this study. The selection of highly verbal, introspective

children would solve the problem, for the researcher. Such a procedure would, however, create new problems regarding the transferability of the findings of the study. Researchers must develop tasks which do not rely solely on verbal reports for the study of the less introspective, less verbal subject, adult or child.

D. The Findings and Adult Learning Theory

Chapter II reviewed five characteristics of adult learners which Knowles(1973) claims must be accounted for in teaching adults: 1) the adult has a need and a capacity to be self-directing. 2) learning must be related to the experience of the adult learner. 3) the adult learner must view the learning situation as meeting his immediate needs. 4) the adult learner must experience achievement and satisfaction in relation to his expectations and needs. 5) the adult must feel secure in the learning situation.

Many writers(Mezirow et al., 1975; Cook, 1977; Newton, 1977; Charnley and Jones, 1979; Newman, 1981) have criticized adult literacy programs, such as the program observed in this study, for their lack of adherence to principles of adult learning theory. These writers have been particularly critical of the lack of opportunity for student self-direction in such programs and the lack of relevance of program materials in such programs to the needs and goals of the illiterate adult. Yet, to what extent are adult illiterates typical of adult learners as characterized by

Kidd and Knowles and therefore, to what extent should programs of basic literacy instruction reflect these principles of adult learning theory? While this study did not directly explore these questions, data relevant to the first of these two questions did emerge in the findings of the study. These data are presented below and, whenever possible, the findings from this study are compared and contrasted with the findings of the three major literacy studies reviewed in chapter II to provide additional insights into the question of the illiterate as an adult learner.

The subjects' positive perceptions of their experiences in the program seemed to be directly related to three of the five principles implied in the above characteristics: opportunity for self-direction, the experience of achievement and satisfaction, and the presence of a secure learning environment.

Self-Direction

While many would criticize the program in which these subjects participated for its lack of opportunity for student self-direction, and while Mezirow et al. would criticize the individualized component of the program as a misrepresentation of the concept of individualization, the individualized aspect of the program did seem to give these subjects a sense of self-direction. As well, the individualized aspect of the program may have helped to foster the attitude in these subjects of shared

responsibility with the teachers for their learning and the independence shown by these subjects in their self-directed learning activities during the study.

The independence exhibited by the subjects in this study is in contrast to the findings of the study by Charnley and Jones(1978) of the British literacy program. Charnley and Jones identified dependency of students upon instructors as a major problem of the program. They attributed this dependency to the mode of delivery of instruction, individualized tutoring.

Achievement and Satisfaction

The subjects in this study experienced achievement and satisfaction in this program. They expected the program to improve their reading skills and in their minds the program did result in increased reading ability. Further, for at least two of the subjects, the approach used was consistent with their expressed expectations of how they would be instructed. Kidd(1973), as noted in chapter II, has indicated that relevance of method as well as objectives is an important factor in teaching adults.

Mezirow et al.(1975) and Charnley and Jones(1978) identified lack of "benchmarks" of progress as a problem for students in the literacy programs which they studied. Lack of "benchmarks" was not a problem for the subjects in this study. The hierarchical nature of the individualized aspect of the program and the policy of reporting to students grade score gains on standardized tests provided sufficient

indicators of rate of progress for these students.

Learning Environment

The learning environment was the third factor which contributed to the subjects' positive views of the program. Charnley and Jones also identified the learning environment as a key factor in their subjects' positive perceptions of the British literacy program.

Charnley and Jones further noted that many of the students in their study did not measure success by the same yardsticks as did their instructors. In the Charnley and Jones study instructors measured success by skill gains; the students often measured success by personal gains, a factor which Charnley and Jones labelled "confidence". Students in the Charnley and Jones study reported increased confidence in themselves, in their social relationships and in their work situations. Charnley and Jones attributed this increased confidence to the context of the learning situation, rather than the content of the program, which was based on the use of materials relevant to the individual goals of each learner. The subjects in this study also reported increased confidence in themselves. This increased confidence obviously influenced their perceptions of the program as successful.

Relevance of Program Materials

As noted in the introduction to this section, many writers have criticized adult literacy programs for their failure to use materials relevant to the everyday lives of

the participants. This criticism is based partly on an interpretation that adult learning principles, particularly the second and third principles cited above, imply that the materials used in adult literacy instruction must be relevant to the real life reading needs of the individual, and partly on studies conducted in Third World Nations which concluded that programs which use a functional approach to literacy are more effective than are studies which use an approach modelled on the developmental approach traditionally used in children's literacy programs. The data from this study and other studies (Thomas, 1976; Charnley and Jones, 1979) suggest that from the perspective of many adult illiterates in western literate societies who choose to participate in literacy programs, a functional approach is not crucial to a successful program. " Thomas noted, that, despite the lack of relevance of the programs which she studied to real life reading needs and despite the lack of opportunity for self-direction within these programs, many of the students were pleased with their programs and unconcerned about the lack of relevance of the program materials to their daily lives. Charnley and Jones noted that the students in their study were indifferent to the content of their instructional programs. They wanted to:

"It may be that, in their attempts to make literacy programs more relevant to adults, program developers have again fallen into the trap identified in the Unesco report of 1972, that of developing programs "according to the notions of what illiterate adults should want rather than what they actually do want" (Unesco, 1972, p.39).

learn to read and they perceived the tutor as the "literacy expert" who knew what was best for them.

The subjects in this study identified no elements of the program which they did not like, even when directly invited to do so at the end of the study. While they identified real life reading skills which they would like to be able to perform as a result of the program, they seemed to view learning to read as a separate skill which must be mastered in order to be able to perform these real life reading tasks. They viewed the instructional program as a first step to achieving functional competence, rather than as *the* step. Further, their behaviour, as exhibited by their willingness to pursue all learning suggestions given by the teachers, indicated that they perceived these teachers as the "experts" who would teach them this skill.

This finding, that for many adult illiterates in western societies the type of material used in the instructional program is not a significant factor in their perception of the program as successful or unsuccessful, does not imply that the field should abandon the pursuit of functional approaches to literacy instruction. Student perceptions of a program are only one factor, albeit an important factor, to consider in evaluating the effectiveness of a basic literacy program. Further, the student perceptions reported in these studies are the perceptions of those students who remained in the literacy,

programs. Dropout rates are high in basic literacy programs.

The results of this study and the studies of Mezirow et al. and Charnley and Jones suggest that variables other than content of instructional material play important roles in subjects' experiences in literacy programs. The effectiveness of the use of functional materials in adult basic literacy programs cannot be studied in isolation from other aspects of the instructional program such as mode of delivery of instruction, e.g. group instruction; one-one tutoring; individualized instruction within a group setting; the subjects' reasons for wanting to learn to read and their concepts of learning to read; and the reading techniques used with the material, e.g. skill orientation, process orientation. Further, the assumption underlying functional approaches to literacy instruction is that such approaches give the participants skills which they can use in their daily lives. The study of Charnley and Jones suggests that we cannot assume that use of functional materials in a literacy program will lead to application of these functional reading skills in the daily lives of the students. Therefore, studies seeking to evaluate the

Previous studies (Mezirow et al., 1975; Thomas, 1976) attributed dropout rates primarily to personal, economic and health reasons rather than the program content. However, the majority of the programs they studied did not use functional content. Further, Mezirow et al. noted that there was evidence to suggest in their data that functional programs may be a significant factor in lowering dropout rates in basic literacy programs.

effectiveness of literacy programs should include assessment of the extent to which participants apply reading skills gained in their daily lives.

Directions for Future Research

The findings of this study cannot be directly applied to the development of adult literacy programs. Much additional research is required. Several areas for further exploration and some new directions for research emerge from the findings of the study and from the discussion of the findings in relation to literature from the fields of reading and adult learning theory. These research directions are summarized below.

1. There is a need for continued research into the relationships between the nature of the instructional program and the development of adult reading strategies.

The researcher identified a strong relationship between the instructional program (materials and teaching techniques) and the development of reading strategies of the adult beginning reader in this study. Further in-depth investigations of the development of reading strategies of adult beginning readers enrolled in literacy programs which use approaches different from the approach used in this study are required. Comparisons of the findings of such studies with the findings of this study could clarify the nature of the relationship between the instructional program and the adult beginning reader's strategies.

2. There is a need for continued research into the

interrelationships between the instructional program and concepts of reading and learning to read with the development of adult reading strategies.

For two of the subjects in this study, Bob and Lisa, there was a match between the content of the instructional program and their perceptions of the type of instruction required to improve their reading skill. Changes in their strategies during the study were in the area of these perceived instructional needs. Further, these two subjects, as well as Karen, continued to use a reading strategy which they had used when they entered the program, but which the program did not emphasize. This finding gives rise to several questions which should be explored in future research: What role does the adult's concept of the reading process play in the development of his reading strategies? Does the adult's expectations regarding the teaching of reading influence his receptiveness to the instructional program? Conversely, to what extent does the instructional program influence the adult's concept of reading and learning to read? To what extent do influences outside of the instructional program such as the opinions of friends and relatives and radio and television influence his concepts of reading and learning to read?

3. There is a need for the compilation of descriptive data on the reading strategies of adults entering literacy programs.

There was great variation in the reading strategies of the three subjects who had received identical scores on a standardized reading test. Such a finding, if confirmed through studies of large samples of adults, would have significant implications for the development of instructional programs.

4. There is a need for research to identify interrelationships between contextual and content aspects of literacy programs with personal outcomes of participation in adult literacy programs.

Subjects in this study and the Charnley and Jones study identified increased self-confidence as an outcome of participation in literacy programs. The instructional content of the approaches used in the two studies differed significantly. This finding lends some support to the hypothesis of Charnley and Jones that the context of the learning situation rather than the content was the significant factor in this development of self-confidence. Neither study directly explored the interrelationships between instructional content and context and the development of self-confidence. Further research is needed to identify factors within the instructional program, and the interrelationships of such identified factors, which contribute to increased self-confidence of participants in literacy programs.

5. There is a need for research into the interrelationships between the context and content of literacy programs with

social outcomes of participation in literacy programs.

Research in adult literacy learning should lead to the development of adult literacy programs which will enable the consumers of such programs, the illiterates, to participate more fully and independently in the world in which they live. Charnley and Jones found that the use of functional content was not sufficient to guarantee use of the skills by the participants in their daily lives. They further suggested that contextual factors such as the mode of delivery of instruction may determine the extent to which adults will apply skills learned in literacy programs to their daily lives. This study did not explore the extent to which participation in the program enabled the subjects to function more effectively and independently in the various roles which they assumed in society as consumers, mothers and workers. Future studies of adult literacy programs should include an exploration of the relationships between contextual and content aspects of the program and the impact of the program on the daily lives of the participants.

6. There is a need for research into the interrelationships between the context and content of literacy programs with the dropout rate in literacy programs.

Literacy programs have high dropout rates. Research studies have attributed these high dropout rates to personal and economic reasons rather than to program factors. However, the studies reported in the literature did not explore in depth relationships between contextual and

content aspects of programs, subjects' expectations regarding program content and retention rate. Research studies which will explore interrelationships between students' reading strategies, students' expectations regarding the teaching of literacy skills and the content and organization of literacy programs with retention rate are needed.

The findings of this study also suggest areas for research in the field of reading in general.

7. Further research is needed to explore the interrelationships between the use of picture clues and other instructional aspects of the reading program with the development of reading strategies in the beginning reader.

The findings of the case study of Mary, the beginning reader, suggest that the effect of pictures on the development of reading strategies in the beginning reader cannot be studied in isolation from the total instructional component of the reading program. Long term studies of the development of reading strategies of beginning readers enrolled in varying instructional programs would help to clarify the role which pictures play in the development of reading strategies and would also help to clarify the relationship between use of pictures and other aspects of the instructional program including the content and teacher strategy statements.

8. Further research is needed to investigate the role which teacher reading strategy statements play in the development

of reading strategies.

The findings of this study suggest that the reading strategy statements which teachers make to students as well as the content of the instructional program influence the development of the students' reading strategies. Long term, indepth, classroom based explorations of the relationships between teacher strategy statements and strategies developed by students are needed.

9. Research into the interrelationships between subjects' performance on reading tasks with subjects' perceptions of the tasks and the types of reading material used in these tasks is needed.

The findings of this study suggest that the type of reading material used in reading tasks and the subjects' perceptions of the tasks influence their performance on the tasks and thus influence the interpretations which can be made from the resulting data.. Further research is needed to specify the ways in which subject perceptions and type of material influence task performance. The results of such research would be useful both to the researcher studying the reading process and to the clinician working with students with reading problems.

E. Toward a Theory of Adult Literacy Instruction

The findings of this study suggest that while insights from the field of reading can be useful in understanding the reading processes of adults, the findings from research on

children's literacy learning are often not directly applicable to adult literacy learning, particularly to the learning of the majority of adults who enroll in literacy programs, those who already possess some degree of literacy skill. Thus the findings of this study have confirmed the need for the development of a research base which would lead toward the development of a theory of adult literacy instruction (Kavale and Lindsay, 1977; World of Literacy, 1979).

From the findings of this study and the synthesis of these findings with the findings of other studies of adult literacy learning, two "conceptual categories" (Glaser and Strauss, 1967) emerge which should be explored in future research on adult literacy learning and which should be accounted for in a developing theory of adult literacy instruction: diversity of illiterate adult learners and the illiterate as an adult learner.

Diversity of Illiterate Adult Learners

One of the major purposes of this study was to gain insights into the reading processes of adult illiterates. A common pattern of reading strategies was anticipated. Instead, what emerged was a pattern of diversity. Diversity of the learners in adult literacy programs is a theme which has been identified by other researchers as well (Mezirow et al., 1975; Thomas, 1976; Charnley and Jones, 1979). Adults who participate in literacy programs have been characterized as varying greatly in socioeconomic characteristics; reading

ability and reasons for enrolling in the programs. The findings of this study added a new dimension to this theme of diversity: diversity in reading strategies. Not only was there great variation in the backgrounds of the subjects in this study and in their reasons for enrolling in the program, but there was also great variation in the reading strategies which they used in the reading process, even among subjects of similar reading ability as measured by standardized reading tests.

This concept of diversity led Charnley and Jones to question "whether any single form of basic education could be appropriate to such a diverse body of students" (1979, p.75), and led Hunter and Harman (1979) to call for the development of "multiple strategies". A further question which the findings of this study suggests is whether any single approach to the teaching of reading could be appropriate to students with such diverse reading strategies.

The Illiterate as an Adult Learner

The subjects in this study, including the two subjects in their late teens, came to the literacy program as adult learners. They had identified long range goals for themselves and had realistic expectations for the role of the literacy program in their long range plans. They were self-motivated. They showed a willingness to accept responsibility for their learning and a capacity to be self-directing. Through prior experience they had developed

definite views of reading and learning to read and a concept of their ability to learn and to function in a literate society. All of these factors played a role in the learning to read process of these adults.

A Final Word: Adult literacy learning is a complex process. An understanding of this process is prerequisite to the development of a theory of adult literacy instruction. The field of reading has a unique contribution to make to the study of this process. From this study, conducted from a reading perspective, new insights into the process have emerged and many questions for future research have been identified. Readers, no doubt, have generated additional insights and research questions. However, the process cannot be studied in isolation. Only from the integration of insights gained from the multiple perspectives of those working in the fields of psychology and sociology as well as education can a full understanding of the adult literacy learning process emerge.

The published word is not the final one, but only a pause in the never-ending process of generating theory. (Glaser and Strauss, 1967, p.40)

Reference List

- Adams, M. J. & Collins, A. A schema-theoretic view of reading. In R. O. Freedle (Ed.) *Discourse processing: new directions*. Norwood, New Jersey: Ablex, 1979.
- Adult Functional Competency: a summary. Austin Texas: Division of Extension, University of Texas, 1975. ERIC Reproduction Documents Service No. ED 114 609.
- Barr, R. The influence of instructional conditions on word recognition errors. *Reading Research Quarterly*, 1972, 7, 509-529.
- Barr, R. The effect of instruction on pupil reading strategies. *Reading Research Quarterly*, 1975, 10, 555-582.
- Becker, H. S. Problems of inference and proof in participant observation. In D. P. Forcese & S. Richer (Eds.) *Stages of social research: Contemporary perspectives*. New Jersey: Prentice Hall, 1970.
- Biemiller, A. The development of the use of graphic and contextual information in children learning to read. *Reading Research Quarterly*, 1970, 5, 75-96.
- Bogdan, R. *Participant observation in organizational settings*. Syracuse, New York: Syracuse University Press, 1972.
- Bogdan, R. & Taylor, S. J. *Introduction to qualitative research methods*. Toronto: John Wiley and Sons, 1975.
- Bower, G.H., Black, J. B. & Turner, T. J. Scripts in memory for text. *Cognitive Psychology*, 1979, 11, 177-220.
- Brown, A. Smiley, S., Day, J., Townsend, M. & Lawton, S. Intrusion of a thematic idea in children's comprehension and retention of stories. *Child Development*, 1977, 48, 1454-1466.

- Calfee, R. Beginning Teacher Evaluation Study: Phase II 1973-1974, final report: volume III.2. Reading and Mathematics Observation System: description and analysis of time expenditures. Princeton, New Jersey: Educational Testing Services, 1976. ERIC Document Reproduction Service No. ED 127-367.
- Chall, J. & Feldman, S. First grade reading: an analysis of the interactions of professed methods, teacher implementation and child background. *Reading Teacher*, 1966, 20, 569-575.
- Clark, H. H. Inferences in comprehension. In D. LaBerge & S. J. Samuels (Eds.). *Basic processes in reading: perception and comprehension*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Clay, M. M. The reading behaviour of five year old children: a research report. *New Zealand Journal of Educational Studies*, 1967, 2, 11-31.
- Denburg, S. D. The interaction of picture and print in reading instruction. *Reading Research Quarterly*, 1977, 12(2), 176-189.
- Denzin, N. K. *The research act*. New York: McGraw Hill, 1978.
- Downing, J. Children's concepts of language in learning to read. *Educational Research*, 1970, 12, 106-112.
- Downing, J. Children's developing concepts of spoken and written language. *Journal of Reading Behavior*, 1972, 4, 1-21.
- Dunkin, M. & Biddle, B. J. *The study of teaching*. New York: Holt, Rinehart and Winston, 1974.
- Drum, P. & Lanfaff, R. E. Scoring categories for protocols. Paper presented at the Second Annual Language Conference, Boston University, October, 1977.
- Fagan, W. T. *A comparison of the oral language of children, ages, nine, ten, eleven: A research report*. Department of Elementary Education, University of Alberta, 1978.

- Frederiksen, C. H. Structure and process in discourse production and comprehension. In M. A. Just & P. A. Carpenter (Eds.) *Cognitive processes in comprehension*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Freedle, R. & Hale, G. Acquisition of new comprehension schemata for expository prose by transfer of a narrative schema. In R. Freedle (Ed.) *Discourse processing: new directions*. Norwood, New Jersey: Ablex, 1979.
- Furniss, E. R. *Schemas for reading and recall of story narrative and descriptive informational texts: a study of sixth grade proficient readers*. Unpublished doctoral dissertation, University of Alberta, 1978.
- Geertz, C. *The interpretation of culture*. New York: Basic Books, 1973.
- Glaser, B. & Strauss, A. *The discovery of grounded theory*. Chicago: Aldine Publishing, 1967.
- Goodman, K. S. A linguistic study of cues and miscues in reading. *Elementary English*, 1965, 42, 639-643.
- Goodman, K. S. Analysis of oral reading miscues: applied psycholinguistics. *Reading Research Quarterly*, 1969, 4, 9-29.
- Goodman, K. S. Reading: a psycholinguistic guessing game. In H. Singer & R. Ruddell (Eds.) *Theoretical models and processes of reading*. Newark, Delaware: International Reading Association, 1976.
- Goodman, K. & Burke, C. Theoretically based studies of patterns of miscues in oral reading performance. Final Report, USOE Project No. 9-0375. Detroit: Wayne State University, 1973. ERIC Reproduction Document Services No. ED 079 708.
- Goodman, Y. *A psycholinguistic description of observed oral reading phenomena in selected young beginning readers*. Ann Arbor, Michigan: University Microfilms, 1969.
- Goodman, Y. & Burke, C. *Reading miscue inventory manual*.

Toronto: MacMillan, 1970.

Gray, W. S. *The teaching of reading and writing*. Chicago: Scott, Foresman and Co., 1956.

Guba, E. Criteria for assessing the trustworthiness of naturalistic inquiries. Draft of annual ERIC review paper presented at Qualitative Research Conference, University of Alberta, April, 1981.

Harris, Louis and Associates. The 1971 national reading difficulty index. New York, 1971. ERIC Reproduction Document Services No. ED 057 312.

Hunter, C. & Harman, D. *Adult illiteracy in the United States*. New York: McGraw-Hill, 1979.

International Development Research Centre. *The world of literacy*. Ottawa, Canada: Author, 1979.

Jackson, P. W. *Life in classrooms*. New York: Holt, Rinehart and Winston, 1968.

Jick, T. J. Mixing qualitative and quantitative methods: triangulation in action. *Administrative Science Quarterly*, 1979, 24, 602-611.

Jones, H. A. & Charnley, A. H. *Adult literacy: a study of its impact*. Durnsley, Gloucestershire, England: F. Bailey & Son, 1978.

Kavale, K. A. & Lindsey, J. D. Adult Basic Education: has it worked? *Journal of Reading*, 1977, 20, 368-375.

Kintsch, W. On comprehending stories. In M. A. Just & P. A. Carpenter (Eds.) *Cognitive processes in comprehension*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.

Kidd, J. R. *How adults learn*. New York: Association Press, 1973.

Kintsch, W., Kozminsky, E., Streby, W., McKoon, G. & Keenan,

J. Comprehension and recall of text as a function of content variables. *Journal of Verbal Learning and Verbal Behavior*, 1975, 14, 196-214.

Knowles, M. *The adult learner: A neglected species*. Houston: Gulf Publishing, 1973.

Lopardo, G. S. *A longitudinal study on the effect of reading instructional method on the word identification responses of children acquiring reading*. Unpublished doctoral dissertation. University of Chicago, 1977.

MacKinnon, A. R. *How do children learn to read?* Montreal: Copp Clark, 1959.

Mandler, J. M. & Johnson, N. S. Remembrance of things parsed: story structure, and recall. *Cognitive Psychology*, 1977, 9, 111-151.

MacGinitie, W. H. & Holden, M. M. Children's conceptions of word boundaries in speech and print. *Journal of Educational Psychology*, 1972, 63, 551-557.

McKoon, G. Organization of information in text memory. *Journal of Verbal Learning and Verbal Behavior*, 1977, 16, 247-260.

Meyer, B. J. The structure of prose: effects on learning and memory and implications for educational practice. In R. C. Anderson, R. Spiro & W. E. Montague (Eds.) *Schooling and the acquisition of knowledge*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.

Mezirow, J., Darkenwald, G. & Knox, A. *Last gamble on education: dynamics of adult basic education*. Washington, D. C.: Adult Education Association of the U. S. A., 1975.

Newton, A. *Adult basic education: Reading*. Boston: Allyn and Bacon, 1980.

Paris, S. G. & Lindauer, B. K. Constructive aspects of children's comprehension and memory. In R. V. Kail & J. W. Hagen (Eds.) *Perspectives on the development of memory*

- and cognition. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Piaget, J. *The language and thoughts of the child*. London: Routledge & Kegan Paul, 1959.
- Powell, W. R. Reappraising the criteria for interpreting informal inventories. In D. L. DeBoer (Ed.) *Reading diagnosis and evaluation*. Newark, Delaware: International Reading Association, 1968.
- Reder, L. M. The role of elaboration in the comprehension and retention of prose: a critical review. *Review of Educational Research*, 1980, 50, 5-53.
- Reid, J. F. Learning to think about reading. *Educational Research*, 1966, 9, 56-62.
- Ruddell, R. Psycholinguistic implications for a systems of communication model. In H. Singer & R. Ruddell (Eds.) *Theoretical models and processes of reading*. Newark, Delaware: International Reading Association, 1976.
- Rumelhart, D. E. Notes on a schema for stories. In D. G. Bobrow & A. M. Collins (Eds.) *Representation and understanding: studies in cognitive science*. New York: Academic Press, 1975.
- Rumelhart, D. E. Toward an interactive model of reading. In S. Dornic (Ed.) *Attention and performance VI*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Rumelhart, D. E. & Ortony, A. The representation of knowledge in memory. In R. C. Anderson, R. J. Spiro & W. E. Montague (Eds.) *Schooling and the acquisition of knowledge*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Schank, R. C. The structure of episodes in memory. In D. G. Bobrow & A. M. Collins (Eds.) *Representation and understanding: studies in cognitive science*. New York: Academic Press, 1975.
- Schank, R. C. & Abelson, R. P. *Scripts, plans, goals and understanding*. Hillsdale, New Jersey: Lawrence Erlbaum,

1977.

- Smith, F. *Understanding reading*. Toronto: Holt, Rinehart and Winston, 1970.
- Snow, R. Representative and quasi-representative designs for research on teaching. *Review of Educational Research*, 1974, 44, 265-292.
- Spiro, R. J. Remembering information from text: the "state of schema" approach. In R. C. Anderson, R. J. Spiro & W. E. Montague (Eds.) *Schooling and the acquisition of knowledge*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Spiro, R. J. Inferential reconstruction in memory for connected discourse. Urbana: University of Illinois Laboratory for Cognitive Studies in Education, October, 1975. ERIC Education Document Services No. ED 136 187.
- Stein, N. L. & Glenn, C. G. An analysis of story comprehension in elementary school children. In R. O. Freedle (Ed.) *Discourse processing: new directions*. Norwood, New Jersey: Ablex, 1979.
- Strang, R. *Learning to read: insights for educators*. Toronto: Ontario Institute for Studies in Education, 1970.
- Sulin, R. A. & Dooling, D. J. Intrusion of a thematic idea in retention of prose. *Journal of Experimental Psychology*, 1974, 103, 255-262.
- Thomas, A. *Adult basic education and literacy activities in Canada*. Toronto: World Literacy of Canada, 1976.
- Thorndyke, P. W. Cognitive structures in comprehension and memory of narrative discourse. *Cognitive Psychology*, 1977, 9, 77-110.
- Tierney, R., Bridge, C. & Cera, M. J. The discourse processing operations of children. *Reading Research Quarterly*, 1979, 14, 539-573.

- van Dijk, T. A. Semantic macro-structures and knowledge frames in discourse comprehension. In M. A. Just and P. A. Carpenter (Eds.) *Cognitive processes in comprehension*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Webb, E. J., Campbell, D. T., Schwartz, R. D. & Sechrest, L. *Unobtrusive measures: nonreactive research in the social sciences*. Chicago: Rand McNally College Publishing, 1966.
- Weber, R. M. A linguistic analysis of first-grade reading errors. *Reading Research Quarterly*, 1970, 5, 427-452.
- Winograd, T. Discourse. In M. Just & P. Carpenter (Eds.) *Cognitive processes in comprehension*. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.
- Wolcott, H. Criteria for an ethnographic approach to research in schools. *Human Organization*, 1975, 34, 113-129.

APPENDICES

APPENDIX A

SAMPLE PASSAGES FROM READING STRATEGY SESSIONS

1. NARRATIVE PASSAGE (Bob, Karen and Lisa)

14. LOST IN A CAVE

WERE YOU EVER IN A DANGEROUS SPOT
ALL BY YOURSELF? HOW DID YOU FEEL?

DID BILL DEAN "USE HIS HEAD" WHEN
HE WAS IN DANGER?

GOSPORT, Ind., Sept. 28 (UPI) — A 17-year-old cave explorer was rescued, wet and cold, today. He had been trapped for twenty-three hours without food or light inside a narrow part of a cave.

Bill Dean had gone exploring by himself yesterday afternoon with only a lamp to light his way. Less than an hour after he entered the cave, his light went out.

He sat in the damp darkness the rest of the day, all night and part of today. "I was a little bit scared," Bill said.

He had decided against trying to find his way out. He thought it best to wait for somebody to rescue him.

One boy crawled 600 feet into the cave, but could not find Bill.

Finally, one of Bill's friends and a teacher crawled slowly inside, found him and led him to safety.

— INDIANAPOLIS STAR



Source: Real Stories Book 1
Globe Book Company. 1975.

11. INFORMATIONAL PASSAGE (Bob, Karen and Lisa)

B-5 A Surprise Plant Story

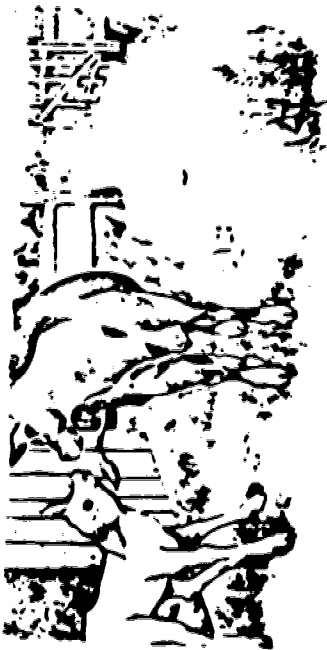
One of the plants that catches and eats insects is called the Venus's-flytrap. The end part of each leaf is really a marvelous little trap. This trap is like a steel trap that snaps together when something springs it.

Along both edges at the end part of each leaf is a row of stickers. They are sharp like needles. When this part of the leaf is open, you can see three little hair-like things on it. Flies like to eat the purple-colored juice that they discover on the leaf.

When an insect enters the trap, he touches one of these hair-like things. The edges of this part of the leaf suddenly snap together. The rows of needles along the edges then cross each other, in the same way that you can cross the fingers of your two hands. These crossed needles keep the insect from getting out. The Venus's-flytraps live on the flies and other insects caught in this way.



111. BASAL PASSAGES (Mary)



Taffy and the Glasses

Mother Cow said, "Come, Taffy.
You may go and play now.
But stay here in the barn yard."

"I will stay here," said Taffy.
"I will not go away."

Taffy walked around and around.
Then she went to the gate.
"I will go just a little way,"
she said.

41

Oral Reading Passages
Source: Open the Gate, Enrichment Series,
Ginn and Company, 1959.



Soon Taffy met a pony.

"Go back to the barn yard!"
said the pony.

But Taffy did not go back.

Then Taffy met a pig.

The pig said, "Go home, Taffy!
Go home to your mother!"

But Taffy walked on and on.
Soon she came to a brook.

"I like it here," said Taffy.

"I see green grass by the brook."

42

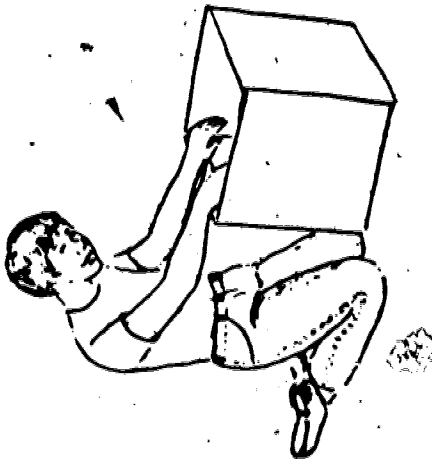
4. One day Mr. Goat saw Mr. Rabbit.
"Mr. Rabbit," said he, "what makes
you look at me?"
"Mr. Goat," said Mr. Rabbit, "you
eat all day. You eat my cabbage. You
eat Mrs. Turtle's eggs. You eat Mr. Cat's
fish. You eat all the groceries. Who
can eat like you?"

311 oral Reading Passage
Source: Second Grade Readings Text
First Basic Readers,
Ginn and Company, 1957.

iv. LAUBACH PASSAGE (Mary)

Robert's pet

(She)



Robert is visiting the pet shop.

He gets a pet.

He thanks the man in the pet shop.

Robert looks at his pet.

He pets his pet.

He looks for a box.

He puts his pet in the box.

Mrs. Oliver is looking for a box.

She gets Robert's box.

She puts apples in the box.

She puts eggs in it.

Mrs. Oliver puts her hand in the box.

Robert's pet is in the box!

Robert's pet jumps!

Mrs. Oliver looks in the box.

She looks at the apples.

She looks at the eggs.

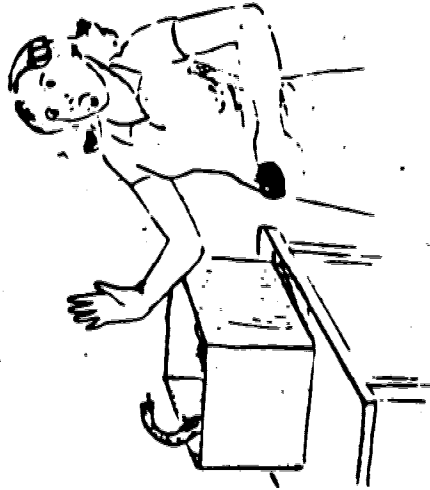
She looks at Robert's pet.

Mrs. Oliver jumps!

She yells and yells and yells!

A snake is in the box!

Robert's pet is a snake!



APPENDIX B
ANALYSIS OF ORAL READING DATA

1. ORAL READING ERROR ANALYSIS SYSTEM

Types and Descriptions of Categories

I. OMISSION

F

The word was omitted in the flow of reading.

S

The word was deliberately skipped.

II. SUBSTITUTION

R

The substitution error was a real word.

N

The substitution error was a nonsense word.

P

The substitution error was a partial attempt to pronounce the word.

III. INSERTION

IV. GRAPHIC

H

Categories 7, 8 and 9 of the Goodman Taxonomy (see following page).

M

Categories 5 and 6 of the Goodman Taxonomy.

L

Categories 1, 2, 3 and 4 of the Goodman Taxonomy.

N

Category 0 of the Goodman Taxonomy.

V. CONTEXTUAL

T

The error results in a structure which makes sense within the total passage.

S

The error results in a structure which makes sense within the sentence but not within the total passage.

P1: The error results in a structure which makes sense only with the prior portion of the sentence.

P2: The error results in a structure which makes sense only with the following portion of the sentence.

The error results in a structure which does not make sense with either the prior or following portions of the sentence.

VI. CORRECTION

Y

The error was successfully corrected.

U

An unsuccessful attempt was made to correct the error.

N

No attempt was made to correct the error.

GRAPHIC PROXIMITY (Source: Rousch, P. D. & Cambourne, B. L. A Psycholinguistic Model of the Reading Process as it related to Proficient, Average and Low Ability Readers. Appendix B. Reproduced from the Goodman Taxonomy of Reading Miscues)

0 There is no graphic similarity between the ER and the OR.

ER the	ER too	ER so	ER huddle	ER had
OR a	OR very	OR but	OR moving	OR been

ER looking	ER coyote	ER urged
OR \$intellate	OR fighting	OR only

1 The ER and the OR have a key letter or letters in common.

ER for	ER under	ER be	ER accident	ER made
OR of	OR ground	OR keep	OR instead	OR read

ER with	ER enough	ER ledges
OR this	OR often	OR glom

2 The middle portions of the ER and OR are similar.

ER soon	ER took	ER touch	ER explode	ER bald
OR cook	OR looked	OR would	OR \$imply	OR glow

ER Elizabeth
OR Isabel

3 The end portions of the ER and OR are similar.

ER don't	ER voice	ER sharply	ER uncles
OR needs't	OR face	OR deeply	OR friends

4 The beginning portions of the ER and OR are similar.

ER perceive	ER may	ER have	ER out
OR perhaps	OR might	OR hadn't	OR of
ER queer	ER experiment		
OR quick	OR sextetter		

5 The beginning and middle portions of the ER and OR are similar.

ER walk	ER went	ER chloroform	ER vapid
OR walked	OR wanted	OR chlorophyll	OR rapidly
ER narrowed	ER morally		
OR \$narrow	OR normal		

6 The beginning and end portions of the ER and OR are similar.

ER pets	ER lamps	ER twitching	ER must
OR puppies	OR lights	OR twinkling	OR sight
ER library	ER uncle		
OR liberty	OR once		

or, the middle and end portions of the ER and OR are similar.

ER cough	ER eternal	ER glanced
OR enough	OR internal	OR danced

7 The beginning, middle and end portions of the ER and OR are similar.

ER quickly	ER calibrations	ER preconception
OR quiet	OR celebrations	OR preoccupation
ER thought	ER exclaimed	ER chemist
OR through	OR explained	OR \$chemist

or, there is a reversal involving three or more letters.

ER was	ER spot	ER elbow
OR saw	OR stop	OR below

8 There is a single grapheme difference between the ER and the OR.

ER better	ER squirting	ER stripes	ER A
OR butter	OR squinting	OR strips	OR I
ER sister's	ER cloudy	ER made	ER when
OR sisters	OR \$cloudy	OR make	OR then

or, a reversal involving two letters.

ER on	ER stick	ER girl
OR no	OR ticks	OR grill

9 The ER and the OR are homographs.

ER (present tense)	ER live (adjective)
OR (past tense)	OR live (verb)
ER (noun)	ER record (noun)
OR tear (verb)	OR record (verb)

CODING SHEET

ORAL READING ERROR ANALYSIS SYSTEM

Reader _____ Date _____ Title _____
 Source _____ Passage Type _____ Fry Readability _____
 Words _____ Errors _____ Accuracy _____

No.	Reader	Text	Omission			Substitution			Insertion	Graphic			Contextual			Correction								
			F	E	H	B	N	Z		M	L	N	I	A	P	M	X	D	M					

Number _____ Date April 30 Title Chillers and 9 Multiple Fixed Path by Drawing

Source Lib. Slates Feature Type Navigation Try Possibility 6

Words 389 Errors 11 Accuracy 95.4

No.	Reading	Text	Omission		Substitution		Insertion	Graphic				Contextual				Correction									
			I	N	B	H		P	E	I	N	L	A	I	P	R	E	I	N	E					
1	the	—																							
2	away	after																							
3	a	the																							
4	the	—																							
5	down	—																							
6	cushing	rising																							
7	Sergeant	Sergeant																							
8	winked	winded																							
9	wasist	wart																							
10	pull	open																							
11	Mason	Mason																							
12	scatyr	scapite																							

11. ATTEMPTS ON WORDS

Types and Descriptions of Categories

I. PHONIC ANALYSIS STRATEGIES

Abbreviation	Strategy	Example
B.C.	Beginning Consonant	T - T for Ted
E.C.	Ending Consonant	l - s for lives
L. Bl.	Letter Blending	K - i - m for Kim
I. Ph.	Initial Phonogram	ca - t for cat
F. Ph.	Final Phonogram	K - im for Kim
Syll.	Syllabic Units	ma - ter for materials

II. OTHER STRATEGIES

Abbreviation	Strategy
Rept. P. P.	Repetition of previous portions of the text
F. R.	Forward Reading. Reading of text following the problem word.
PIC.	Examination of the picture
W. Word	Pronunciation of a word following a pause
Nothing	Long pause with no response

III. SUCCESS of STRATEGY

- S. Attempt resulted in identification of the word.
- U. Attempt did not result in identification of the word.

March 30, 1972
 Uncle Ted Unity Ind. Co. Dallas, Texas
 Passage type Adult Library
 Dry Sealability

No.	Task	No.	Acceptance	S.C.	S.G.	L.S.I.	I.P.H.	P.P.H.	Syll.	Dept. P.P.	P.S.	Pic.	W. Word	Nothing	Q.	U.
1	G/ea	1	M...							1 2 1 72						
		2	Salics													
		3	Alc.													
		4	C S													
2	lines	1	log axes													
		2	W1 test													
3	Jill	1	J													
4	kin	1	KI - real													
		2	Min													
		3	f - in													
		4	Will end													
5	live	1	The Hills													
		2	I													
6	Ted	1	T													
		2	Seared that													

APPENDIX C

ANALYSIS OF RECALL DATA

1. ALTERNATE SYNTACTIC STRUCTURES*

SYNTACTIC STRUCTURES

A syntactic structure may be one of three types:

1. t-unit which was the unit used for dividing the protocols into utterances
2. basic t-unit which is the simplest independent predication which may be used to convey information.
3. alternate syntactic structure which with a basic t-unit make up a t-unit and which with the addition or substitution of words could become a basic t-unit. The alternate structures analysed are:

Relative Clause:

I admire my English teacher who is a scholar.

That + S as Object/Subject/Complement:

I believe that he has made the team.
That he has made the team is obvious.
 It is surprising that we won the game.
 It appeared that she would make it.

WH + S as Object/Subject:

I know what annoys him.
What annoys me most is his arrogance.

Infinitive as Object:

I tried to answer the question correctly.

Infinitive of Purpose:

The exercises are designed to help you.

Ing-Nominalization:

Tom's hot redding disturbed his mother. She objected to his continuous complaining.

Ing-Nominalization of Purpose:

I have a knack for getting into trouble.

Adverbial Expansion of WH + S:

The lawyer spoke so rapidly that he confused the jury.

*Source: Fagan, W. T. A Comparison of the Oral Language of Children: A Research Report. University of Alberta, 1978.

Adverbial Expansion-1 in Place/Time/Manner/Cause:

314

He hid where the cook keeps the food.
He ran when he saw the policeman.
He ran as if his life depended on it.
The teenagers threatened to throw his boots in the water
so he threw them his golf balls.

Adverbial Expansion-2:

When he had worked hard and had proved himself a fisherman,
he felt better.

Common Elements: This refers to a structure which by itself is
incomplete as a basic t-unit but could easily be expressed
as such.

The room seemed lonely and damp.
He took out a duffle bag and some boots, and then turned off
the light.

WH:

He has a book he wants to show you.

WH + Auxiliary/verb:

Then he hopped on this schooner called the Jean Frances.
He saw the boy running through the field.
This one guy had a rope around his neck.

(That) + S as Object:

I know he is a good fisherman.

That + S as Object quotation (the quotation must contain a verb):

The captain said, "You will have to do your share of work."
The men asked, "How much are you selling the golf balls for?"

Comparative 1:

He had to work as hard as the other men worked.

Comparative 2:

He had to work just like the other men.
This book is more interesting than that one.

With Phrase:

The man with the golf cart started after him.
The teenagers with the car were hunting for golf balls.

Adjective (only in front of the noun):

He was a brave boy.
The sick man could not go out fishing.

Participle (only in front of the noun; otherwise it is classed as a
WH Auxiliary/verb):

He stood by the closed door.
The howling dog kept me awake all night.

Appositive:

They took him to his father, the captain of the ship.

Genitive:

Then they heard the ship's horn.
The captain of the boat said he's have to work.

Passive: This structure was not considered a syntactic alternate to
the basic t-unit since it sometimes was the basic t-unit.
Its presence was noted separately because of the implications
for the focusing of the subject noun.

11. RECALL ANALYSIS CATEGORIES*

- A. TEXT SPECIFIC INFORMATION - Recall units which are the same or synonymous with the text. This category includes syntactic paraphrases which contain no new information.
- B. TEXT ENTAILED INFORMATION - Recall units which put text information together in new ways, add information that is reasonable in the context of the text, or summarize text information.
- C. TEXT ELICITED INFORMATION - Recall units which combine text information in confused or erroneous ways. This category also includes experiential intrusions, information which may or may not be correct but for which there are no specific text referents.
- D. TEXT EVOKED INFORMATION - Recall units which are related to the topic of the text but which are so general that they do not convey any information.
- E. TEXT EXTERNAL INFORMATION - Recall units which have no relationship to the text, or which are false starts or repetitions of previous information.

*Source: Drum, P. A. and Lantaff, R. E. Scoring Categories for Protocols. Paper presented at the Second Annual Language Conference, Boston University, October, 1977.

SAMPLE MARKED PROTOCOLS

II. WAS IT WORTH IT?

YOU SEE A GROUP OF BOYS
BEATING UP ANOTHER BOY

WHAT DO YOU DO?

One night Mike Collins was with his girl. They were having something to eat at a roadside stand.

Suddenly they heard a lot of noise outside in the parking lot. Mike went to see what was happening. He saw a boy lying on the ground. A group of older boys were beating him.

Mike stepped in to help the boy on the ground. There were ten of the others. The last thing Mike remembers is that someone hit him in the face with something metal.

At the hospital, they found Mike's face had been broken in three places. Six weeks later, Mike came home. He will need an operation on his eye. He had been working in the day and going to college at night. Now he cannot go to work or to school.

Not one of the ten boys has been arrested. No one has been able to say who the boy was who hit Mike with the metal.

Was it worth it for Mike?

—NEWBY (LONG ISLAND, N.Y.)

61

WAS IT WORTH IT?

There's this boy, (he) him and his girlfriend were, (were) out on the roadside. They heard something. So he went out and he saw (10) boys beating up on this (one) boy (so then he).. he went and tried to help. But (they, (they) hit him) one boy hit him with (a .. (some) kind of (steel) metal. They knocked him out and (uh) he went to hospital. (They never did find that) they never did arrest that boy (for).. (which boy) they didn't know which one did it.

APPENDIX D**STRUCTURED INTERVIEW: CONCEPTS OF READING
AND LEARNING TO READ**

**STRUCTURED INTERVIEW: CONCEPTS OF READING
AND LEARNING TO READ**

I Conventions of English Orthography

Materials: Reader's Digest Adult Reader

1. (a) (Present book wrong way up and spine toward subject)
E(examiner): Show me the front of this book.
- (b) E: Find the first story in the book.
- (c) (Point to title)
E: What is this? Why is it there? What does it do?
- (d) E: If I were going to read this story where would I start to read? (If S shows title, ask where after that)
- (e) E: Show me with your finger which way I go when I read this story.
- (f) E: After I've finished reading this page, where would I go to continue reading the story?
2. (Subject is given a pencil and is asked to underline):
 - (a) a sentence
 - (b) another sentence
 - (c) (If a and b correct)
E: How did you know they were sentences?
 - (d) a word
 - (e) two words
 - (f) E: How did you know they were words?
 - (g) a capital letter
 - (h) a small letter
 - (i) a vowel
 - (j) another vowel
 - (k) E: Can you name the vowels?
 - (l) a consonant
 - (m) the first letter in any word
 - (n) the last letter in any word

3. (Subject is asked to indicate the next page to be read. E repeats questions 1(d), 1(e), 1(f).)

(E points to each of the following punctuation marks, and for each asks: (1) What is it? (2) Why is it there?)

(a) .

(p) ?

(q) :

(r) ,

(s) " "

II Segmentation of Oral Language

Materials: box of colored blocks

1. Segmentation of sentences into words.

- Directions: 1. E says sentence
2. S repeats sentence
3. S repeats sentence and puts out a block for each word.

Sample Sentences (to be done by E)

1. Cats drink milk.
2. Elephants live in the zoo.

Sentences:

1. Dogs chew bones.
2. Cats chase pigeons.
3. We went to the concert.
4. I have to go home.
5. The dog wanted to eat.
6. Snow is cold.
7. Mary is drinking lemonade.

8. We live in a big house.

9. John lives by the ocean.

Presentation Order: 1, 5, 2, 7, 3, 9, 4, 6, 8.

2. Segmentation of words into syllables.

- Directions: 1. E says word
2. S repeats the word
3. S repeats word and puts out a block for each syllable.

Sample Words(to be done by E)

1. rabbit
2. together
3. reputation

Words:

1. basket
2. mechanic
3. information
4. psychology
5. mountain
6. understand
7. wonderful
8. working
9. television

3. Segmentation of one-syllable words into phonemes.

(a) Ability to distinguish individual phonemes.

- Directions: 1. E says a pattern of three phonemes.
2. S puts out blocks to represent the pattern spoken by E. Different phonemes are represented by different colors, but the choice of color is not important.

Samples(to be done by E)

1. s s (red red)

2. s w (red white)
3. k o k (green white green)
4. p p i (yellow yellow blue)
5. d l e (red white blue)

Test Items:

1. sh o o
2. u r k
3. i i i
4. a t m
5. p i p
6. sh o m

(b) Segmentation of one-syllable words into phonemes.

- Directions: 1. E says a word.
2. S puts out a block for each phoneme (sound) in the word. Different phonemes are represented by different colors, but the choice of color is not important.

Samples (to be done by E)

1. my (red white)
2. night (blue white yellow)

Test Items:

1. shy
2. toe
3. ray
4. shut
5. rid
6. peck
7. write
8. room
9. tame

Presentation Order: 4, 2, 7, 9, 3, 6, 5, 1, 8.

III Concepts of reading process and learning to read

1. E: What do people do when they read? How do they read?
(Ask for elaborations)
2. E: If you were reading and came to a word that you didn't know right away, how could you figure out what the word is? Any other ways? (keep asking until can't give any more)
3. E: How do you think they will teach you to read? What will they teach you so that you will be able to read?
4. (If the subject has had reading instruction before)
E: Is that how you were taught before?
(If answer is no, then ask)
E: Why do you think they will teach you differently now?

IV Purpose of reading

1. Why do people read?
2. Why do you want to learn to read?
3. Has not being able to read caused you any problems?

APPENDIX E

DOCUMENTATION OF THE INSTRUCTIONAL PROGRAM

3

i. INDIVIDUALIZED INSTRUCTION

CODES FOR INDIVIDUALIZED INSTRUCTION SHEET

Codes for the Category 'Reading'

Word Identification Skills

- WP Phonics
- WS Structural Analysis
- WSY Syllabication
- WC Context Clues
- WSW Sight Words
- WD Dictionary Work

Comprehension Skills (based on Barrett's Taxonomy)

- CLD Literal Details
- CLM Literal Main Idea
- CLS Literal Sequence
- CLC Literal Comparison
- CLE Literal Cause and Effect
- CLT Literal Character Traits
- CID Inferential Details
- CIM Inferential Main Idea
- CIS Inferential Sequence
- CIC Inferential Comparison
- CIE Inferential Cause and Effect
- CIT Inferential Character Trait
- CE Evaluation
- CA Appreciation
- CCL Classifying Information
- CO Outlining
- CS Summarizing
- CSN Synthesizing Information

Vocabulary Development

- *VWM Word Meaning

*Indicates a category or code used in the California Beginning Teachers Evaluation Study (Calfee, 1976)

Reading Practice

- *PRA Reading Aloud
- *PRS Reading Silently

Codes for the Category 'Writing'

- WPR Printing Practice
- WW Cursive Writing Practice
- *WP Punctuation
- *WG Grammar
- *WC Composition

Codes for the Category 'Spelling'

- SD Spelling Dictation
- *SP Spelling Practice
- *SW_ Word Identification Skill taught as part of Spelling
(classified as S + appropriate word identification code)

***Codes for the Category 'Response Mode'**

- *L Listening
- *S Speaking
- *R Read Silently
- *A Read Aloud
- *W Write
- C Choose correct response (e.g. circling)
- *P Physical Act (e.g. tracing)

Note: Combinations are possible and are classified in order of occurrence (e.g. LSW - listen, speak, write)

Codes for the Category 'Unit of Print'

- IL Letters in isolation
- IW Words in isolation
- IP Pictures in isolation
- CPW Words in context (pictures)
- CPH Words in context (phrases)
- CS Words in context (sentences)
- CPS Sentences in context (pictures)
- CP Words in Context (one paragraph)
- CMP Words in context (more than one paragraph)

Codes for the Category 'Structure of Print Code'

- N Narrative
- I Informational
- NI Narrative-Informational
- F Functional (forms, applications, signs)

Codes for the Category 'Audience'

- CB Material from basal readers or supplementary material intended for use with basal readers.
- CL Material intended as recreational reading for children.
- A High interest-low vocabulary material intended for junior high and high school students.
- AD Material developed for adults.

Codes for the Category 'Direction of Activity'

- T Teacher-directed
- S Student-directed
- E Evaluation (e.g. testing of sight words, spelling test)

INDIVIDUALIZED INSTRUCTIONAL RECORD SHEET

Student _____ - Feb 19 - *beginning of work time to date*

Date	Length of Session	Direction of Activity	Reading	Writing	Spelling	Specific Skill	Response Mode	Unit of Print	Structure of Print Code	Audience	Other
			wf			Beginning, Middle Ending, Consonants	S, W	IP			Phonics 21(2-8)(2-2)
			wf			Middle Consonants	S, W	IP			Phonics 21(2-9, 2-10)
			wf			Beginning, Middle Ending Con.	C	IP			Phonics 21(2-18)
			wf			Beginning, Middle Ending Con.	C	IP			Phonics 21(2-7)
			wf			Initial Blends ff	C 3 under picture study ff	IP			Phonics 27-a
			wf			Initial Blends ff, ee, ee	C (letters)	IP			Phonics 27-b
			wf			Initial Blends ff, ee, ee	C (letters)	IP			Phonics 27-c
			wf			Initial Blends ff, ee, ee, ee	C (letters)	IP			Phonics 27-d

ii. GROUP PHONICS CLASSES

CODES FOR GROUP PHONIC INSTRUCTION RECORD SHEET

In addition to codes used in the Individualized Instruction Record Sheet the following codes are also used.

Codes for the Category 'Phonic Method'

LS	Letter-sound method
IP	Initial phonogram method
WW	Whole word method
R	Rule or pattern method
F	Word family method

Note: Combinations are possible and are recorded in order of occurrence.

GROUP PHONIC INSTRUCTION RECORD SHEET

Student - 11/17

Date	Length of Session	Direction of Activity	Specific Skill	Phonic Method	Response Mode	Unit of Print	Structure of Print Code	Audience	Other
	15 min.	T	Syllabication		A	I W (syllables)			Correcting Sheet 6-2-7 p 7b -had each of the syllables I told them the answer (have to match syllables to write words).
	10 min.	T	Unscramble 3 syllables to into a nature word		(Correct only) ① A ② A ③ W	I W (syllables)			Spelling 6-2-8 - Correcting I read all the syllables told them the answer - all they had to do was correct. (6th column) - Then they took turns reading the syllables & giving the answer. - Had to spell the final word ④ Next part they had done together last time so I did them quickly
	13 min.	T			A "	CS I W (syllables)			Spelling 6-2-8 - (last 3) - Put syllables together to make word to put in blank - Took 3 turns reading aloud - had to read syllables 1st - then 5.



GROUP PHONIC INSTRUCTION RECORD SHEET

Nov 19

Length of Session	Direction of Activity	Specific Skill	Phonic Method	Response Mode	Date of Print	Structure of Print Code	Audience	Other
13 min		"le" syllable		L, W				At blackboard. - spoke the syllables one at a time - did not say word list - e.g. 1st syllable is 'lubl' - 2nd syllable is 'le' Then said 'what's the word?' [Apparently the word was a review from last week]
5 min.		Mixture of 2-syllable words		L, W				Same procedure - says 1st syllable - then after they've spelled it says 2nd syllable 'what's the word?'

PHONICS INVENTORY TEST

PHONICS INVENTORY TEST A.

1. **Initial Consonant Sounds:** Write the letter that stands for the sound you hear at the beginning of each word.
 - 1. neck
 - 2. bird
 - 3. part
 - 4. watch
 - 5. part
 - 6. money
 - 7. fork
 - 8. hair
 - 9. dice
 - 10. record
 - 11. leader
 - 12. grille
 - 13. window
 - 14. nose
 - 15. boy
 - 16. jacket
 - 17. sock
 - 18. post
 - 19. vacuum

2. **Final Consonant Sounds:** Write the letter that makes the sound you hear at the end of each word.
 - 1. worm
 - 2. bus
 - 3. day
 - 4. wall
 - 5. fly
 - 6. sheep
 - 7. lion
 - 8. bird
 - 9. tail
 - 10. pig
 - 11. glove
 - 12. pair
 - 13. boat
 - 14. bag
 - 15. buzz

3. **Initial Consonant Sounds:** Write the letter that makes the sound you hear at the beginning of each word.
 - 1. rabbit
 - 2. leader
 - 3. react
 - 4. clever
 - 5. call
 - 6. giraffe
 - 7. shower
 - 8. tiger
 - 9. letter
 - 10. driver
 - 11. hammer
 - 12. collar

4. **Initial Sounds:** Write the letters that make the sounds you hear blended together at the beginning of each word.
 - 1. blast
 - 2. draw
 - 3. frog
 - 4. trap
 - 5. spring
 - 6. slip
 - 7. flag
 - 8. class
 - 9. plan
 - 10. slim
 - 11. prop
 - 12. scrap
 - 13. acid
 - 14. tramp
 - 15. strip
 - 16. splash
 - 17. acid
 - 18. splash
 - 19. blast
 - 20. bang
 - 21. crab
 - 22. snip

5. **Final Sounds:** Write the letters that make the sounds you hear blended together at the end of each word.
 - 1. dust
 - 2. lamp
 - 3. stand
 - 4. fact
 - 5. bust
 - 6. dust
 - 7. tank
 - 8. gold

6. **Short Vowels:** Write the vowel that makes the sound you hear at the beginning or in the middle of each word.
 - 1. at
 - 2. rob
 - 3. bit
 - 4. under
 - 5. sell
 - 6. and
 - 7. tab
 - 8. light
 - 9. odd
 - 10. pass

PHONICS INVENTORY TEST B

1. **Consonant Digraphs:** Write the two letters that make the sound you hear at the beginning of each word.
 - 1. shere
 - 2. chan
 - 3. thub
 - 4. whistle
 - 5. than
 - 6. sing

2. **Long and short vowels:** What vowel do you hear in each word. Write the vowel and write L or S beside it to tell whether it is long or short.
 - 1. rite
 - 2. slim
 - 3. hope
 - 4. lane
 - 5. alone
 - 6. lay
 - 7. bus
 - 8. tide
 - 9. nest
 - 10. tube

3. **Final Sounds:** Sometimes two vowels work together and have one sound. Some of these are oo, oi and ou. Listen to each word and write the two letters that make the vowel sound.
 - 1. book
 - 2. round
 - 3. room
 - 4. leaf
 - 5. soil
 - 6. rain
 - 7. joy
 - 8. tree
 - 9. joy
 - 10. boat
 - 11. blue
 - 12. see

4. **Consonant controlled vowels:** Sometimes words have a vowel changed by a consonant as in the, there, their. In each word write the vowel and consonant letter that changes its' sound.
 - 1. girl
 - 2. here
 - 3. church
 - 4. fern
 - 5. arm
 - 6. pair
 - 7. ball
 - 8. ear
 - 9. word

APPENDIX F

SAMPLE WORKSHEETS

1. SIGHT WORD WORKSHEETS

I. W. (1 - 96)

Drill Four

Reading Sentences

1. They're so little !
2. After I give you this, do the work and then go.
3. She may come here again.
4. An old man has been out there all day.
5. Give him that after he gets up.
6. I would like the other new one.
7. She will eat again about two.
8. He was not here when I was.
9. How long have you been here ?
10. I just do not know how to make this !
11. Which one of them is good to eat ?
12. They're not with her.
13. They were here to see you about that.
14. After work, I would like to eat out.
15. She said that they're very good to eat.

I. W. (1 - 96)

Drill Five

Unscrambling Sentences

1. give do to other work them I will.

2. here he said he would he then by

3. man know I not one the other do was who .

4. down there they're .

5. for you work long how he will ?

6. you she all after give will to it.

7. today us with eat they will.

8. you her with know who was do ?

9. boy is the here other ?

10. when little you were , him did you know ?

I. W. (1 - 96)

Drill Six

Underline the correct word.

1. Do you know (who him her) was here ?
2. (How Who But) much of this is good ?
3. They did (they're their there) work.
4. He is (and a an) old man.
5. Give her the (about some other) one.
6. (Were Was Have) you with him ?
7. I will go (about again after) work.
8. How long (were are was) he here ?
9. Come (here her how).
10. I would like a (new know no) one.
11. Our little boy is (three eat some).
12. Go (they're there their) with him.
13. This is (long just how) for you.
14. Would you like to (eat see they're) with us ?
15. Put the work (their they're there).

11. WRITING WORKSHEETS

Writing (9 - 3)

PHRASES

Phrases tell how, where, when, why, what, or who about an action, or a person or thing. Under each phrase tell if the phrase tells how, where, when, why, what or who.

Example: The student is talking to the teacher.
who

- 1) We walked over the bridge.
- 2) The cat ran into the barn.
- 3) She is making sandwiches for lunch.
- 4) The children are making a snowman in the backyard.
- 5) We started a fire to burn the garbage.
- 6) She sat down to rest after the long day.
- 7) The mountains are beautiful on a clear day.
- 8) The fish in this stream are very good to eat.
- 9) The old man with the cane walked around the corner.
- 10) At ten o'clock, we should stop for a coffee break.
- 11) My mother fixed the sink in the kitchen with ease.
- 12) She took the book from the shelf and then sat at her desk.

Writing (9 - k)

Phrases

Underline all the phrases in the following sentences.

1. Mike swam the lake in three hours.
2. The girls took their lunches to school and ate them at noon.
3. We walked in the woods for two long hours.
4. These bats fly into caves at night to sleep.
5. I have been waiting for two hours for my plane.
6. He brought warm sweaters from the car.
7. The young bear climbed the tree in his pen.
8. Four people were playing tennis on the court.
9. Her grandmother was sending flowers to Alice.
10. The man had given him the guitar.
11. The man's name was written on the paper.
12. He was very happy to see him there.
13. A bag of apples was on the table.
14. They looked between the two cases.
15. Will you give some to the children?
16. David has gone into the kitchen for the knife.
17. He is a good basketball player.
18. The puppy wagged his tail at me and barked.
19. She collects dolls as a hobby.
20. The ball sailed into the window.
21. You should plant these vegetables in a row.
22. Frost has frozen on the dog's whiskers.

Writing (9 - n)

Fill each blank with the proper phrase word.

1. We depend _____ him for a drive to work every day.
2. How slow that man is _____ writing!
3. Why do you feel ashamed _____ your house?
4. Picasso is famous _____ his modern paintings.
5. This room smells _____ smoke. Be careful _____ the fire.
You could be burned if you insist _____ playing with it.
6. If you quarrel _____ him, you'll be sorry _____ it later on.
7. It is impossible _____ them to help you _____ your moving
because they'll be busy _____ their gardening.
8. We're hoping _____ some time off next week.
9. May I borrow some paper _____ you?
10. Ask _____ the hammer so I can hang up this picture.

Writing (9 - p)

to brush your teeth

to tell you

in the morning

6. I forgot.

up a long hill

into the woods

across the field

7. The skidoo travelled.

under the window

at the plant

for a better look

8. The baby crawled.

at the clock

to punch their cards

for a moment

9. The workers stopped.

from a crack

under the snow

in a rack

10. A flower was growing.

near the door

in the rack

of the room

in the corner

Writing (9 - 4) =

PHRASES

Use these phrases in good sentences.


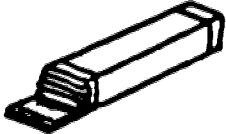


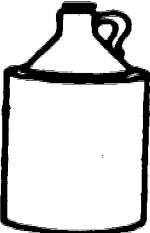

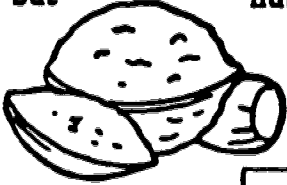
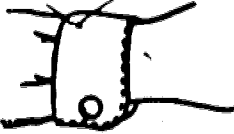
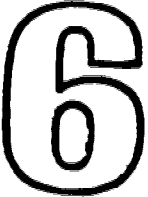

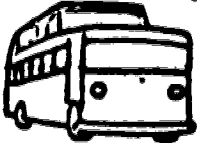
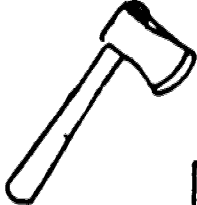
- 1) along the way
- 2) into the building
- 3) ahead of you
- 4) through the house
- 5) without her books
- 6) before dinner
- 7) around the block
- 8) against the wall
- 9) from Manitoba
- 10) above the sink
- 11) over the roof
- 12) at home
- 13) by evening
- 14) off the table
- 15) on the street

111. PHONICS WORKSHEETS

Ph: Vow: a4-m

UNIT 2: Short vowel U.

DIRECTIONS: Draw a circle around the name of the picture. In the box, print the vowel th
you hear in the word.

<p>cap cup</p>  <p>kit []</p>	<p>gas gun</p>  <p>gum []</p>	<p>Dick duck</p>  <p>Dad []</p>
<p>can cup</p>  <p>cap []</p>	<p>jug jig</p>  <p>just []</p>	<p>tug tip</p>  <p>bug []</p>
<p>but nuts</p>  <p>nap []</p>	<p>calf cut</p>  <p>cuff []</p>	<p>sack six</p>  <p>sick []</p>
<p>sun sum</p>  <p>dim []</p>	<p>as bun</p>  <p>bus []</p>	<p>ask ax</p>  <p>is []</p>

Drill: Ph. Vow. 23ha i(Fill each blank with a or with i)

1. S_a w_ll f_ll the t_n with y_s.
2. J_ll c_n t_p the m_n.
3. M_x h_d a_n_p in the v_n.
4. The k_d h_s a_c_n of j_n.
5. D_n r_n a_c_b.
6. P_n c_n f_x the r_p in the h_b.
7. The l_d c_n s_t on the s_ll.
8. F_ll the b_n with y_ms.
9. D_d p_t h_t the p_g?
10. S_d c_n m_x the w_X in the v_t.
11. M_x h_s a_t_g c_t in the b_g.
12. M_t c_n f_t the l_d on the p_n.
13. The l_d h_s a_b_d h_p.
14. D_n w_ll t_p the f_n.
15. T_m w_ll k_ll the b_g r_t.
16. P_t h_d the M_p on the h_ll.
17. The l_d w_ll f_b to h_s d_d.
18. J_m h_d a_r_g _t the a_ll.
19. P_n the t_g on the b_g.
20. The t_n h_t c_n f_t the M_n.

Drill: Ph. Vow. 231

2 & 1
Reading Sentences

1. The big pig will nip at the bag.
2. The fat cat had a nap in the hat.
3. Jill's tum has a rip.
4. Can Sid win at bet?
5. Did Dan fix the van?
6. Pam's wig has pins in it.
7. The lid for the wax will not fit.
8. Jim's van sat on the hill.
9. Will the fan tip on the sill?
10. The lad will miss his dad.
11. Pass Sid the jam can.
12. Six kids sat in the cab.
13. Fill the bag and zip it.
14. The can of gas is for Kim's van.
15. The tan van will pass the cab.

Ph. (27 - 9)

Blends

• Blends are made up of two or more consonants blended together in sound.

Examples: stop

strap

The S- Blends

sc st sl sm sp sn st sw

Read these words. Circle the s- blend in each.

- | | | |
|----------|-----------|-----------|
| 1. scat | 11. slab | 21. slid |
| 2. skiff | 12. Stan | 22. still |
| 3. slap | 13. stall | 23. snub |
| 4. small | 14. snip | 24. stag |
| 5. span | 15. swill | 25. skull |
| 6. snap | 16. skit | 26. stuff |
| 7. stiff | 17. smut | 27. skid |
| 8. swell | 18. snuff | 28. smog |
| 9. scan | 19. slip | 29. skill |
| 10. slat | 20. skin | 30. skip |

Ph. Bl. (27 - h)

S- Blends

* sc, sk, sl, sm, sp, sn, st, sw

Add blends to make different words.

- | | |
|-------------|-------------|
| 1. ___ ip | 21. ___ ab |
| 2. ___ ub | 22. ___ un |
| 3. ___ id | 23. ___ an |
| 4. ___ ag | 24. ___ ip |
| 5. ___ uff | 25. ___ ot |
| 6. ___ an | 26. ___ ap |
| 7. ___ ab | 27. ___ all |
| 8. ___ at | 28. ___ ot |
| 9. ___ ap | 29. ___ ag |
| 10. ___ all | 30. ___ ill |
| 11. ___ it | 31. ___ ep |
| 12. ___ ill | 32. ___ iff |
| 13. ___ ut | 33. ___ all |
| 14. ___ all | 34. ___ ep |
| 15. ___ og | 35. ___ it |
| 16. ___ iff | 36. ___ ob |
| 17. ___ ill | 37. ___ un |
| 18. ___ un | 38. ___ op |
| 19. ___ all | 39. ___ at |
| 20. ___ um | 40. ___ aff |

 umbrella
 radiator

Put a check mark above every vowel in each word. Count the vowels. Write the number in the box.

- | | | |
|-------------------------------|------------------------------|--------------------------------|
| elephant <input type="text"/> | cabbage <input type="text"/> | shoulder <input type="text"/> |
| mountain <input type="text"/> | minutes <input type="text"/> | tomorrow <input type="text"/> |
| neighbor <input type="text"/> | teacher <input type="text"/> | evergreen <input type="text"/> |
| answered <input type="text"/> | brought <input type="text"/> | appeared <input type="text"/> |
| porridge <input type="text"/> | orange <input type="text"/> | cupboard <input type="text"/> |
| potatoes <input type="text"/> | Tuesday <input type="text"/> | treasure <input type="text"/> |
| building <input type="text"/> | enough <input type="text"/> | beautiful <input type="text"/> |
| complain <input type="text"/> | clothes <input type="text"/> | Halloween <input type="text"/> |
| squeaked <input type="text"/> | invited <input type="text"/> | breakfast <input type="text"/> |
| pleasant <input type="text"/> | babies <input type="text"/> | surprised <input type="text"/> |

Long vowels say their names. Put a check mark above each long vowel. Copy the long vowel in the box.

- | | | | |
|---------------------------|--------------------------|---------------------------|----------------------------|
| bake <input type="text"/> | eat <input type="text"/> | mind <input type="text"/> | apron <input type="text"/> |
| iron <input type="text"/> | tie <input type="text"/> | soil <input type="text"/> | usual <input type="text"/> |
| safe <input type="text"/> | use <input type="text"/> | mice <input type="text"/> | beach <input type="text"/> |
| nose <input type="text"/> | no <input type="text"/> | meal <input type="text"/> | music <input type="text"/> |
| sign <input type="text"/> | toe <input type="text"/> | each <input type="text"/> | stone <input type="text"/> |
| soap <input type="text"/> | ice <input type="text"/> | unit <input type="text"/> | eagle <input type="text"/> |

Spelling (6 - 7)



The number of vowel sounds you hear tells how many syllables or parts are in the word.

Underline the syllables in each word. Count, then write the number of syllables in the blank space with the word.

- | | | |
|---------------|----------------|-----------------|
| 1 <u>skin</u> | _____ listen | _____ spent |
| _____ cattle | _____ ripe | _____ accident |
| _____ leaf | _____ general | _____ different |
| _____ promise | _____ peaches | _____ traveling |
| _____ common | _____ great | _____ satisfied |
| _____ spent | _____ program | _____ team |
| _____ receive | _____ fortune | _____ introduce |
| _____ several | _____ remember | _____ radiator |
| _____ throne | _____ treasure | _____ disappear |
| _____ palace | _____ elevator | _____ mischief |
| _____ bicycle | _____ mountain | _____ chocolate |

Spelling (6 - 1)

TWO-SYLLABLE SHORT-VOWEL WORDS

All big words are made up of little words or parts that you can pronounce.

bedbug
invest

sunset
collect

milkman
abandon

Draw a ring around the small words. Practice reading these words.

cannot	bedbug	pigpen	tiptop	tenpins
uphill	upset	kidnap	cobweb	sunset
padlock	puppet	himself	itself	hetrack
handbag	handcuffs	sandbox	sandman	cockpit
milkman	muskat	pumpkin	windmill	dustpan

Draw a ring around the small parts in each of these words. Practice reading them. Listen to what you read.

basket	picnic	rabbit	happen	lesson
napkin	pocket	confess	goblin	bonnet
button	tablet	velvet	restful	helpful
handful	mitten	sudden	jacket	kitten
ribbon	funnel	disgust	attic	expect

Find the missing word and complete each sentence. Practice reading the sentences.

You _____ sell your jacket to Tom.	cobweb	cotton	cannot
Jeff cannot get himself a _____	bulldog	himself	tiptop
Jack and his dog led the pigs to the _____	dustpan	pigpen	padlock
Edwin cannot win at _____	lesson	tennis	bonnet
The gang will attempt to _____ the king.	pigpen	sunset	kidnap
Bess put napkins in the picnic _____	disgust	basket	helpful
The jet left for the west just at _____	sunset	cobweb	pumpkin
Bub had a rabbit in the pocket of his _____	sudden	lesson	jacket
Agnes had _____ her handbag in a closet.	sudden	hidden	happen