A WHOLE LANGUAGE APPROACH TO LITERACY
IN A GRADE FOUR/FIVE CLASSROOM

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by

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ABSTRACT

This two year exploratory study compared a basal reader approach to the teaching of language arts in grades four and five with a whole language approach which used children's literature, magazines and a variety of functional reading materials as the vehicle of instruction. The purpose of the study was to identify a teaching method which would most successfully promote the language arts competencies of thirty-nine rural children in a multigrade (four/five) classroom environment. The impact of the two types of school curricula on three criterion measures of language arts achievements were estimated by an ordinary least squares regression method. The outcome variables were reading, writing and spelling.

To control for possible confounding effects of home background and prior scholastic achievement, these variables were added to the equations as covariates. An accurate linear composite reflecting the conventional socioeconomic status variable could not be constructed; hence, was dropped from the analysis. Unexpectedly, however, the sex variable for the grade four/five students proved to have significant predictive value. Thus, both sex differences and cognitive ability were selected as the covariates. In effect, then, the impact of curricular treatments--basal reader versus whole language methods--on reading writing and spelling were estimated while controlling for sex and ability.

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Since whole language methodology is currently regarded as an innovative teaching procedure it was referred to as the experimental treatment. It was found that the impact of whole language on reading performance was negligible though the relationship was in the hypothesized direction. While the same inconclusive finding held for spelling it was argued that this result had important practical implications since spelling is not formally taught as a language skill in the whole language curriculum in the same way that it is when using a spelling text.

While both reading and spelling competencies proved unresponsive to the experimental treatment compared to the basal reader method, this was not the case with writing. Children's writing was responsive [at the $p \leq 0.10$ level of significance] to the experimental treatment when controlling for sex differences and ability. Finally, it should be noted that sex differences accounted for variance in both reading and writing literacies, while cognitive ability accounted for achievement in reading and spelling.

In sum, in this exploratory study the whole language approach seemed to be a marginally better methodology for promoting elementary school literacy. Since there is little research demonstrating the instructional advantages of whole language it was claimed that these findings may have important implications for pedagogical practice. Note, however, that the teacher using whole language methodology requires many

more resources over and above the standard basal reader in order to adequately meet the literacy needs of elementary school pupils.

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CHAPTER I

INTRODUCTION TO THE STUDY

Statement of the Problem

How to assist children in becoming literate continues to be a question that attracts considerable attention and controversy. Traditionally, learning to read has been viewed as the acquisition of a collection of separate, sequential skills which researchers and educators assumed the child would eventually integrate in order to acquire fluent reading ability. For many years it was believed that children must learn to read and spell before they could write. The assumption was that reading and writing were such complex processes they must be taught separately. As a result of this orientation, phonics and other word attack skills were taught in isolation in the belief that if children could learn to recognize words and their meanings, they could then deal with sentences, paragraphs, whole stories and articles. Smith (1983a) labels this traditional view of reading the "outside-in-theory" of reading. He states:

> Outside-in-theories are ... characterized by the notion that everything on a page of text is "processed" and that reading is primarily a hierarchical series of decisions--first letters are discriminated, then they are synthesized into words ... as a consequence of which comprehension takes place. (p. 59)

For many years the language arts substrands of reading, spelling and writing were taught separately. The vehicle used

to teach children how to read was a basal reading series. It was widely accepted that only teachers could teach reading, and hence that children could not learn to read until they went to school. Doake (1982) explains the situation in the following way.

> This guardianship has been exerted and maintained through a belief that learning to read is a complex process that has to be taught to children after they reach five and six years of age and that this learning should occur via the presentation of an extensive series of carefully sequenced skills. The control of this process then, the teachers claim, has to be left in their hands since only they possess a comprehensive knowledge of this sequence of skills, of how to teach them, and only they have available appropriate materials to provide the children with the necessary practice to develop mastery over the skills. (p. 4)

Learning to write was another substrand that had to be taught in school. It was believed that a child could learn to write after he had learned not only to read, but also to spell words conventionally. This meant that in the schools in Newfoundland and Labrador a child would not learn to write until at least grade two where formal spelling is introduced. Learning to write also went from part to whole. Researchers and educators inferred that knowing how to spell words would enable a child to develop the supposedly sequential skills of writing sentences, paragraphs and stories or essays. Reading, writing and spelling were all treated as separate skills which could best be imparted directly by teachers via formal instruction from prescribed texts.

Two decades ago these traditional ideas regarding literacy began to be questioned by people such as Frank Smith

(1973) and Kenneth Goodman (1968). These researchers advocated a language based theory of reading known as psycholinguistics which suggests that fluent reading can be viewed as an active process in which readers obtain meaning from the utilization of minimal cues from three cueing systems: graphophonic, syntactic and semantic. The graphophonic refers to the visual array of print and the sound-symbol relationship. The syntactic system refers to the grammatical interrelationship of words. The semantic system includes the underlying meanings that the words in the text evoke in the reader. Psycholinguists promote the view that readers use not only graphophonic cues to figure out the words but also semantic and syntactic cues.

Goodman (1968) emphasizes that reading is language based and described skilled reading as a psycholinguistic guessing game between thought and language. Smith (1983a) refers to this language based body of knowledge as the "inside-out theory" of reading.

> The inside-out view ... regards reading as a truly active, centrally motivated and centrally directed process in which readers hypothesize, or predict, among a certain range of meaningful likely alternatives and search and analyze among the featural information available in the print only to the extent necessary to resolve their remaining uncertainty. (p. 61).

There are many proponents of the language based theory of reading who have criticized the basal reader approach. Goodman (1986a) believes that the basal reader and its components fragment the language process and that they take

time away from productive reading and writing. Goodman and Goodman (1982) suggest an alternative approach for teaching children to read and write. Their approach, which they call a whole language comprehension centered view of reading development, grew out of the psycholinguistic theory of reading. This approach regards literacy as a natural extension of human language development and is based on a cognitive psychological relationship among language, thinking and learning. Altwerger, Edelsky and Flores (1987) state:

> The key theoretical premise for Whole Language is that, the world over, babies acquire a language through actually using it, not through practicing its separate parts until some later date when the parts are assembled and the totality is finally used. The major assumption is that the model of acquisition through real use (not through practice exercises) is the best model for thinking about and helping with the learning of reading and writing and learning in general. (p. 145)

The whole language view of reading can be defined as a child-centered approach to reading instruction which realizes that language and literacy development are best facilitated when the subskills (reading, writing, talking and listening) are interrelated. In a whole language classroom the children are exposed to whole, meaningful texts. They exercise control over what they read and what they write. Spelling is an integral part of writing and is never treated in isolation. Whole language teachers believe that spelling, reading and writing are developmental processes that are best learned in an environment that has the following characteristics as outlined by Dillon (1982).

1. There is an availability and range of printed material.

2. Reading is done because it is functional.

3. Many opportunities are provided for contact with paper and pencil because writing develops along with reading.

4. Children learn to read for understanding not accuracy of word recognition.

Basal readers still dominate reading instruction in the province of Newfoundland and Labrador. The same is true in most schools in North America. The series of reader presently in use in grades four through six in Newfoundland and Labrador is <u>Networks</u> published by Nelson. It appears to be an attempt by a major publisher to follow current theories in reading. According to the teaching guide, <u>Networks</u> was developed to provide students with cohesive experiences in literacy by linking listening, viewing, speaking, reading and writing. The problem is that this basal program contains an overabundance of materials and thus does not leave the teacher with much time to draw on the student's own experiences for speaking, listening, reading or writing. It does not allow for daily independent reading even though it does recommend related fiction and non-fiction books. Research by Anderson, Hiebert, Scott and Wilkenson (1985) indicates that the amount of independent silent reading children do in school is significantly related to gains in reading achievement. These research findings suggest that independent reading is probably a major source of vocabulary growth and reading fluency.

For a number of reasons, this study takes the position that <u>Networks</u> does not meet the necessary criteria for a whole language program. First, the fact that the program has a skillbook to accompany each anthology (reader) suggests a skills orientation. Second, as with all basal series, the authors have developed a reading program for children they do not know. Third, the children have little control over their reading materials because the class progresses through the readers, story by story, at a pace that is imposed on all. Fourth, in its attempt to be whole language oriented, <u>Networks</u> has a writing component. This, however, is linked to the reader and, thus, is prescriptive. Fifth, although the series was developed around a number of themes which recur at each level, much of the material in the readers was written specifically for these themes and, therefore, tends to have a contrived aspect to it. Many selections lack the authenticity of stories written by children's authors who write for children rather than for the specified themes of basal readers. Sixth, the accompanying novels were also written specifically for the program. The publisher was aware that the professional literature was recommending the use of novels in the teaching of reading and, hence, novels were included. Many teachers using the novels believe that they lack the quality of good children's literature. It should be noted, however, that these novels are not part of the prescribed program for Newfoundland and Labrador. In summary, instead of being student-centered, which is fundamental to

whole language, <u>Networks</u> is still a teacher-directed program that appears to leave little time for independent reading.

In the province of Newfoundland and Labrador another problem has arisen related to the provision of specified texts for each grade level. Within the province there are many multigraded classrooms; that is, classrooms composed of students from two or more grade levels. In such classrooms the amount of instructional time has to be divided between or among the grades involved. This mean in classrooms such as the grade four/five class in which this study was conducted, the amount of instructional time was divided between the two grades with each grade getting fifty percent of the teacher's time.

Purpose of the Study

It would appear that there are two theoretical orientations concerning literacy learning which have brought about two major approaches to the teaching of reading, writing, spelling and listening. These orientations have been referred to as the bottom-up and top-down views of reading (Otto, 1982). The bottom-up view, the traditional view, is founded on behavioral psychology which is more concerned with the product of having learned to read than the process of learning to read. The curriculum used for the traditional view has always been a basal reader series which regards reading primarily as a decoding process. This type of

curriculum is often referred to as the skill oriented approach which perceives reading as a hierarchy of sequential skills that have to be imparted to the children by the teachers.

Contrasted with this is the top-down view of reading which has developed from psycholinguistics, a derivative of cognitive psychology and linguistics. Cognitive psychologists believe that learning is an active process directed by the learner not the teacher. Linguists are concerned with the human acquisition and use of language; that is the process by which language is learned and the uses made of language. Psycholinguists redefined reading in terms of acquiring meaning, rather than in terms of learning skills. They were concerned with how children learned to read rather than with what skills needed to be taught to children so they could read.

The approach used to teach reading from this point of view is a child-centered type of instruction where the teacher is a facilitator for the children. Such an approach is called whole language. According to Searfoss and Readence (1985), no single issue is receiving more attention when approaches to reading instruction are discussed than whether schools should adopt approaches that are based on a skills/subskills view of reading or those that reflect a holistic/whole language view of reading.

The purpose of this study was to explore the use of a basal reader series that claims to be whole language oriented and to compare it with the use of a program that had no

specified texts but utilized children's literature as its foundation. It examined the two approaches to determine which leads to better reading comprehension and to more able writers and spellers. The study attempted to answer the following basic questions.

1. To what extent is reading comprehension responsive to the type of program provided?

2. To what extent is writing ability responsive to the type of program provided?

3. To what extent is spelling ability responsive to the type of program provided?

There are many correlates of reading behaviour that could influence the literacy development of children apart from the type of program provided. Another purpose of this study, then, was to examine the influence of two of these, namely, socioeconomic status and cognitive ability. The extent to which these correlates influenced reading, writing and spelling ability was determined. The study attempted to answer the following questions regarding the effects of these two factors.

1. To what extent is reading comprehension responsive to the type of program provided over and above (a) socioeconomic status, and (b) cognitive ability?

2. To what extent is writing ability responsive to the type of program provided over and above (a) socioeconomic status, and (b) cognitive ability?

3. To what extent is spelling ability responsive to the type of program provided over and above (a) socioeconomic status, and (b) cognitive ability?

Significance of the Study

Goodman (1979) advocates that successful reading teachers must be well informed about the process of reading and learning to read. He states that a whole language comprehension centered theory of reading is what teachers need to be informed about because such a theory has demonstrated its effectiveness in helping children become literate.

Osburn (1983) posits that the teacher should be encouraged to use whole language in teaching language arts. It represents a realistic structure and setting for reading and writing, allowing students to practice reading skills in such a way that they actually encounter and engage in a multitude of skills rather than focusing on mastering one skill at a time.

This investigator hypothesized that teaching reading using whole language could not be done as well through using a basal reading series as it could through a literature based program. If this is the case, perhaps the basal reading series should be discarded in favour of a whole language program based on children's literature.

Another significant aspect of this study relates to the fact that multigraded classrooms are becoming more prevalent

in the province of Newfoundland and Labrador. In July, 1986, the government of Newfoundland and Labrador published a paper entitled, "Trends in Education: Part I Demographic Projections" which presents the following findings from a study pertaining to enrollment within the province's schools.

1. Kindergarten enrollments will continue in a downward mode and reach approximately 7700 by 1995 (enrollment in 1986-87 was 9396).

2. The number of primary students will decline on average by 1.64% per year.

3. The number of elementary students will decline on average by 2.30% per year.

4. The number of junior high students will decline on average by 2.36% per year.

5. There will be a minor variation in senior high enrollment, however, significant decreases will occur during the 1990's.

6. The total enrollment for the province will continue to decrease annually.

As the school population decreases, the number of teachers in the schools also decreases but the number of grades may not change. Thus, grades will have to be combined in the same classroom. This indicates there is a growing need for a reading program that can be more effectively and efficiently presented in a multigraded classroom than the present basal approach which uses specific texts for each grade and cuts the teacher directed language arts time in half

for each group. Because this exploratory study is being carried out in such a setting, it may lend support to an alternative type of program that could be used in the future in similar settings.

Many educators and researchers have been advocating the use of whole language as the best approach to developing literacy in children. They believe that reading and writing evolve in the same manner as oral language. Goodman (1979, 1986a), Holdaway (1979, 1980, 1984), Barrett, Holdaway, Lynch and Peetom (1984), Watson (1983), Newman (1985a, 1985b), Baskwill and Whitman (1986), Rich (1983, 1985a, 1985b), Doake (1987) and Gunderson and Shapiro (1988) are a few supporters of such an approach. Because their writings are relatively new, there is little evidence from research studies to support their claims. This study, therefore, may have both theoretical and practical significance for offering whole language programs.

Limitations to the Study

There are five main limitations to this study which can be classified as: (a) conceptual; (b) measurement; (c) data-gathering; (d) researcher bias; and (e) ethical concerns. The first stems from the fact that many of the variables that affect literacy acquisition were not measured because the scope of the research would not permit it. Such variables as

background experiences, perseverance, motivation, and assistance at home were not considered.

The second limitation, measurement of variables, has four aspects. First, the basal reader approach which was used during the first year of the study was part of the <u>Networks</u> series by Nelson. This was a relatively new series which means that there was little information or feedback available about the program except what the publishers themselves stated. They indicated that it was a whole language oriented series which, if the claim was true, could have influenced the results of this study.

The second aspect of the measurement limitation concerned one of the testing instruments, the Canadian Test of Basic Skills. This test has two forms but the investigator had access to only one. This meant that the children were exposed to the same reading comprehension passages a number of times (up to four times for the children who were part of the sample for the two years). This could have influenced the results of this particular test.

Another limitation of measurement involved the approaches used each year. Three important characteristics of a whole language program are reading aloud daily by the teacher, daily independent reading by the students and the teacher, and daily writing by the students and the teacher. The investigator had been supplementing the basal reading program with these activities during the past three years and could not abandon such activities for the first year of the study because it

might be detrimental to the students. This could have influenced the results during the first year of the study as well as the second.

The most important limitation of measurement was that the affective domain outcomes of using a whole language program could not be measured. There are tests which measure these variables accurately but the sample size was not large enough to consider any additional variables beyond reading, writing and spelling.

The data-gathering limitation had two aspects. First, the sample was not randomly selected. Therefore, the findings cannot be generalized to a wider population. Second, the size of sample was determined by the nature of the natural experiment conducted in a multigrade classroom over a two year period. The size of the sample in the first year was 21 and in the second year was 18.

One could argue that in studies of this kind where the researcher is seemingly committed to a preferred course of action, that there is a potential researcher bias. Obviously, in field studies of this kind the "double blind" approach found in pharmacological and epidemiological studies which counters "researcher bias" criticism, is not possible. Instead, one has to be as impartial as one can. Since such impartiality is much more readily controlled in structural equation modeling--the numbers speak for themselves as it were--than in the more subjective case study approach (which otherwise might have been a viable alternative), it was

decided to take the structural equation route because it is
analytically more rigorous. All descriptive studies are
analytical to a degree, and case studies are no exception, but
because case studies do not lend themselves quite so readily
to quantification; hence, do not permit the rigorous
statistical control of potentially confounding variables, it
was believed that the structural equation modeling approach
was to be preferred. Background information on the strengths
of structural equation models may be found in Heise (1975);
Duncan (1975), Goldberger (1972) and the two volumes of
Blalock (1971, 1974).

A comment perhaps is necessary on why the causal modeling
approach was preferred over an experimental approach. The
answer is that research in natural settings does not lend
itself very often to the random selection of subjects to
either of the experimental or control groups. If the true
experimental design were possible it is clearly the preferred
route since it is the only design on the basis of which the
researcher can impute causality--that is the direction of the
relationship being examined. Since an experimental study was
not possible one has to use the next best thing; namely,
statistical controls rather than experimental controls. That
is why in the present study sex, SES and prior ability were
used as covariates. One could, of course, have used an
analysis of covariance model as isomorphic with the
theoretical model. Note, however, that ANCOVA findings are
in terms of variance explained (hence, the F-values) and not

in terms of parameter estimates which are to be preferred. Since ANCOVA is a subset of the general linear model, ordinary least squares estimation was used with some dummy variable predictors (treatment and sex). This gives exactly the same results as with ANCOVA but with the additional advantage of having goodness of fit estimates and parameter estimates (betas): hence making specific interpretation in terms of the specified relationships possible.

Since statistical controls are placed on those variables which the researcher believes could otherwise confound the results, one can never be sure that controls have been placed on all the potentially confounding variables. All the researcher can do in this instance is to control for the variables that have been defined in the literature as covariates. Such studies require constant replication by others before the researcher can be truly confident that the specified relationships hold under all conditions, No such claim is made here. It is encouraging, however, that replicatory studies are already underway (Mercer; nd.; Payne, nd.).

Reference has already been made to the fact that the author biased the study against her in that some whole language aspects of reading had already been incorporated into the reading curriculum before the study began. On ethical grounds this curriculum was not altered in any way. Indeed, all the parents of the students were verbally informed of the research being conducted in each year of the study and without

hesitation gave their unanimous consent. When parents gave their educational and occupational data they did so in the knowledge that the information was confidential and that it would be used only for research purposes.

The author next obtained ethical approval for the research from the School Board. The Language Arts Coordinator at the Board assisted the author in this matter. Since education in Canada is a Provincial responsibility and since, therefore, the Provincial educational authority can override the decisions of university ethics committees in so far as the ethics of an educational research is concerned, it was believed that the School Board in conjunction with the parents were the most appropriate ethical authorities to consult. See Appendix E for the letter of consent.

CHAPTER II

THEORETICAL BACKGROUND TO THE STUDY

Traditional View of Reading

Over the decades a variety of methods for teaching children to read have been used by teachers. Beebe (1980) gives an historical development of the skills approach to the teaching of reading comprehension. She looked at the treatment of reading by early educators and researchers from the early 1600's to the 1970's in the United States and pointed out that similar developments in reading research and pedagogy were occurring more or less simultaneously in Europe and Canada.

During the period from 1607 to 1776, the ABC method depicted reading as a fragmented and sequential activity. Beebe (1980) states, "In the ABC, or alphabetic method, the child learned, first of all, to name the letters ... . It was believed that when the child had mastered the letters by name, he had also mastered the sounds and should, therefore, be able to read" (p. 6). From 1776 to 1840 reading, characterized by mechanical oral reading, was an automated, sequential precise and unambiguous activity. "The emphasis on elocution in reading had an even more profound effect on reading instruction than did the emphasis on articulation, in that for many years it established fluency in oral reading as the prime consideration in reading instruction" (Beebe, 1980, p. 9).

Up to the mid 1800's reading instruction was characterized by roteness with no emphasis on understanding.

Between 1840 and 1910 reading was beginning to be seen as an activity that involved understanding as the whole word methodology emerged and an interest in literacy appreciation arose.

> Reading began to be seen as a means of appreciating at least one cultural pursuit, literature ... . Comprehension, then, became a major concern and toward the end of the era was seen as surpassing the importance of the mechanical ability to read. However, it should be pointed out that expressive oral reading was still very much "the order of the day". (Beebe, 1980, p. 13)

From 1919 to 1935 the pedagogy shifted emphasis from oral to silent procedures. Reading came to be regarded as an inner, silent activity which still demanded the use of several, simultaneous skills. According to Beebe (1980):

> The era from 1910 to 1925 marked the beginning of the scientific movement in education when psychological studies in reading clearly indicated the superiority of silent over oral reading. Reading now came to be seen as a psychological, thought-getting activity that depended on underlying skills or abilities. Proficiency in speed and comprehension were found to be largely responsible for reading ability, although what the more basic skills involved in both components were, remained as yet uncertain. (p. 16)

During the silent reading era from 1935 to 1950 a number of questions were raised: (a) what exactly are the simultaneous skills employed during reading; (b) which of the skills can and should be learned by children learning to read and which should be learned by children reading to learn; and (c) are the skills divisible into levels such that each level

builds upon the preceding level? Finally, the era of the 1950's to the 1970's was the period when the development of the skills hierarchies appeared. Beebe (1980) states:

> Such carefully ordered categories allowed teachers to plan the introduction and mastery of the essential subskills of reading across the elementary grades so that by the time a child entered junior high school he had at his command not only the skills necessary to interpret literature but the ability to interpret information in the content area texts. (p. 4)

Aulls (1982) suggests that since not all humans learn to read, reading is not a natural process which can be acquired without instruction. Reading, a complex unitary skill, can be divided into subskills, which have to be learned. "Normally, reading subskills are considered to be best learned and interrelated through sequencing. Sequential learning is arranged to begin with simpler subskills and work towards larger, more complex skills" (Gagne, 1965, cited in Aulls, 1982, p. 32).

Advocates of a skills/subskills view believe that fluent reading is comprised of mastering different skills and subskills just like a building is formed by putting bricks together to form walls, and walls together to form the whole structure. Fluent reading occurs because of the smooth integration of these separate components. In a subskills view, a core of skills and subskills is developed and the elements are placed in a rough sequence (Searfoss & Readence, (1985).

Proponents of the skills view of reading give a number of advantages in viewing reading solely as a skill. Aulls (1982, p. 35) points out the following benefits of using a skills approach.

1. Treating reading instruction solely as teaching subskills offers an analytical, manageable, and testable basis for designing reading programs.

2. Because what is taught can be directly tested, teachers can assess the extent to which instruction has influenced subskills learning, and can describe or monitor individual pupil progress throughout the year.

3. Teachers can teach reading in an orderly manner by providing small linguistic units to be directly taught, practiced, and then applied during text reading.

4. A specific sequence can be followed in teaching subskills so that successfully more difficult texts can be read, as a function of learning successively more difficult subskills.

5. The level of mastery of discrete subskills can be estimated by comparing subskill knowledge to proficiency in oral and silent reading performance.

The traditional belief in learning to read by the skills approach was reflected in the published instructional material.

A skills orientation to reading is probably familiar to all reading teachers since most published materials reflect this orientation. In one set of materials (Random House Criterion Reading) reading is subdivided into over 450 skills. These skills are ordered hierarchically and each is tested and taught in turn. Knowledge of these skills is generally considered to be both necessary and sufficient for learning to read. (Malicky, 1980, unpaged)

Published materials like those just mentioned, often referred to as a basal reading series, are the vehicles most frequently used to teach children how to read. "Basal readers are written, for the most part, to teach subskills and their integration, and they represent a major approach to reading instruction with a subskills view" (Searfoss and Readence, 1985, p. 91).

Basal Readers

Basal reading programs dominate reading instruction in North American schools (Goodman, 1986b) which would appear to indicate that many educators support their use. Logan, Logan and Paterson (1972) examined current approaches to teaching reading and found that, in well over 90 percent of the elementary schools surveyed, the major instructional tool in teaching reading was the basal reader. Its usefulness lies in the carefully developed sequential organization for the development of reading skills and in a controlled vocabulary.

> The most important aspect of basal reading materials is that they develop skills sequentially, control vocabulary, promote language growth and offer practical aids and suggestions through the teacher's manuals. (Witty, Freeland and Grotberg, 1966, p. 197)

This same view regarding basals is still prevalent in the 1980's. Lapp and Flood (1983) state:

> The premise underlying the basal reading method is that reading is a developmental task involving the acquisition of major skills and that each of these major skills is comprised of many subskills. These subskills vary in difficulty and complexity and, therefore, need to be introduced to the reader in a logical prescribed order. Not only do the

subskills in each major skill area need to be ordered, but plans need to be made for integrating them into an instructional program so that the reader can begin to interrelate them. (p. 294)

The basal reader approach is concerned with all aspects of reading and has three major features: scope, sequence and organization. Scope means the range of skills that the fluent reader needs to acquire. Sequence deals with the order in which the various skills and subskills are taught. Organization refers to the integration of all the elements including individual lessons, units and books within a series by providing guidance by way of a teacher's manual that directs the teaching of the skills and subskills (Searfoss and Readence, 1985).

In addition to the teacher's manual, there are several other components which make up most basal reading series. The components that are common to most are as follows.

1. The better basal programs contain one or more books at each level, from prereading through a minimum of six grades (Kennedy, 1981). Basal readers are constructed of selections with the difficulty of the vocabulary carefully controlled. The selections begin at lower reading levels for beginning readers and gradually increase in difficulty as children move from level to level (Searfoss and Readence, 1985).

2. A basal program normally includes workbooks or skillbooks. These workbooks contain a set of

exercise materials to give skills practice. Some exercises are used as an introduction to stories, others provide background activities for the skills to be taught and the rest are supplementary practice for skills development.

3. Most programs suggest or provide additional books and exercises to further the skill development that is emphasized in the manuals. These are usually referred to as supplementary materials.

4. Test results are essential for adequate program planning. Suitable measuring instruments, provided as part of basal series, simplify the work of the teacher in selecting the skills and abilities to be emphasized (Kennedy, 1981).

Many reading methodology textbooks support the hierarchial, sequential view adopted by basal readers. Thorn (1974) states that a good basic program provides a carefully developed sequence of skills in word perception and interpretation and a plan for systematic instruction in these areas. Durkin (1984) suggests that basal reader programs are the best known instructional materials used in the teaching of reading. "These materials warrant generous coverage in a methodology textbook because they not only influence but, at times, even shape teacher's behavior" (p. 368). Cheek and Cheek (1980) believe that reading skill development forms the basis of a sound reading program. For them, instruction in reading skills is the reading teacher's major role. They urge

teachers to remember that a hierarchy of sequential skills should be used to guide instruction.

The basal reading instruction previously discussed had several features which make it readily adaptable to the development of a balanced reading program. Basal approaches provide for continuity of growth and minimize the danger of instructional gaps or extreme one overlapping. They enable the teacher to move a child from one level to another with a minimum waste of time. Basal readers and accompanying manuals follow the particular plan or theory of reading advocated by authors and publishers of a series of texts. This leads to consistency of methods and techniques from grade to grade. Teacher's guidebooks are especially beneficial to beginning teachers and they also help experienced teachers to more thoroughly and adequately plan for the teaching of stories in geographical or social settings that are unfamiliar to them. The minimum essential materials necessary in developmental reading instruction are supplied in basal reading programs. Another advantage of basal programs is that they provide a developmental and systematic approach to vocabulary building (Kennedy, 1981).

Criticisms of Basal Readers

In recent years basal readers have received considerable criticism as a result of reading research which placed emphasis on the syntactic and semantic elements of reading comprehension (Carroll, 1978; Goodman, 1968, 1974, 1986a;

Smith, 1973, 1978, 1981, 1982). "Investigators have shifted emphasis from reading being primarily conceived of as a series of careful visual perceptions with research focusing on graphophonic skills, to reading being perceived as a highly complex multi-factor and integrated process" (Beebe, 1976, p. 16). According to Pearson and Johnson (1978), "Research appears to have shifted away from an emphasis on decoding and methods of teaching reading towards an emphasis on understanding how readers comprehend and how we can help students comprehend better" (p. 24).

Researchers have investigated many aspects of the basal reading programs and have uncovered several weaknesses. One appears to be that the amount of time children actually spend completing workbook type activities is disproportionately large. Mason (1983) reported that reading lessons in many classrooms were frequently interrupted by worksheet exercises. Because of the amount of time devoted to workbook tasks, there is little time left for interpreting, predicting, or analyzing a story or informative text. In the report Becoming a Nation of Readers Anderson et al. (1985) state that children spend up to 70% of the time allocated for reading instruction in independent reading practice or seatwork. Most of that time is spent on workbook and skill sheets directly related to the basal programs in use. Yet, classroom research shows that the amount of time devoted to worksheets is unrelated to year-to-year gains in reading proficiency. Another study showed not only that students spend the majority of their time doing

workbook activities but also that these activities, which are meant to be done independently, are frequently harder to read than the basal reader selections (Fitzgerald, 1979).

For many years educators felt one advantage of using a basal reading series was that all students in a particular group could receive instruction at the same time from the same reading text. Because of this, educators relied upon the expertise of a publisher's staff to diagnose the reading needs and prescribe the reading material for any given group of children. It was further assumed that all stories in a basal reader were appropriate for all the children using the text and, while timing was not specifically prescribed, all children were expected to cover at least one full book during a semester or term. Ironically, that advantage of basal readers is now viewed as a major disadvantage.

> In any given classroom, if only one series is used and if it is used in a rigid, narrowly structured fashion, it too often occurs that children learn to dislike, and to be bored by reading. They also learn to view reading as a time of day and a set of unpleasant practices, rather than as a challenge, and a possible source of pleasure. (Rudman, 1976; p. 395)

Holdaway (1984) suggests that teachers tend to make false assumptions about basal readers. It is often believed that the sequence of skills and subskills presented have been scientifically ratified and, hence, should be rigidly followed for every child. Another false assumption is that the series was written by experts and their judgments are superior to that of teachers.

Newman (1985c) criticizes the use of basal readers. She says:

> Such programs have been based on two assumptions: first, the complex process of reading skill needs to be broken down into simpler component skills and second, if students are taught these simple skills in a sequence, they will emerge fluent readers. (p. 57)

Newman suggests that as basal reading programs fragment the reading process, more and more children have trouble learning to read. The assumption about the reading process on which these programs rest are at odds with what we understand about how language functions and how it develops.

A valid criticism of basal readers is that the knowledge required to understand the selection is not always handled well instructionally. When Russavage, Lorton and Millham (1985) involved teachers in a study to assess the weaknesses of basal readers, teachers consistently identified the basals' failure to address students' lack of prior knowledge. "Not only are many stories irrelevant to the experiences of each student's interests, but also teachers' manuals include few strategies for developing background knowledge or resolving conflicts of inaccurate prior knowledge" (p. 316).

The authenticity of the stories in the basal readers is also questioned. Many of the stories were written to fit into a publisher's overall plan for the reading series. In the primary reading series the vocabulary would always be controlled. As a result, the contrived stories are not always appealing to the readers. Huck (1977) contends:

Today's sociological and politically conscious basal
readers with their cast of United Nations characters
are no more authentic literature than the earlier
readers ... . The basal reader is an anachronism
reminiscent of earlier times when we had few books,
no school libraries and thought all children had to
have identical materials to learn to read. (p. 364)

Likewise, the very concept of literacy lacks support

within the contexts of basal readers. Stories rarely depict

the activity of reading as being pleasurable, necessary and

valuable (Hall, 1982), and literacy is seldom necessary to the

plots in basal stories (Green-Wilder and Kingston, 1986).

Children often complain about how stupid the stories are in

their readers and say they hated reading them (Clary and

Smith, 1986).

The major weaknesses of the basal readers are succinctly

summarized by Goodman (1986b, pp. 361-362).

1. They put undue emphasis on isolated aspects of
   language: letters-sound relationships, words,
   sentence fragments or sentences. Often,
   particularly in workbooks, there is no cohesive
   meaningful text and no situational context.

2. That leads learners to put inverted value on
   the bits and pieces of language, on isolated
   words and skills, and not enough on making
   sense of real, comprehensible stories and
   expository passages.

3. Basals discourage risk taking by requiring
   right answers on trivial details.

4. They introduce arbitrary sequences of skills
   which involve readers in abstract exercises
   instead of reading to comprehend.

5. They isolate reading from its use and from
   other language processes.

6. They often create artificial language passages
   or text fragments by controlling vocabulary or
   by building around specific phonic
   relationships or word-attack skills. They also

create artificial texts by applying readability formulas to real texts.

7. They minimize time spent on reading while monopolizing school time for skill exercises.

8. Even the use of real children's literature is marred by gearing it to skills development, rewriting it, or using excerpts instead of whole books.

9. Basals cost so much that they do not leave funds for school and classroom libraries and other more authentic reading material.

The Psycholinguistic View of Reading

The traditional view of reading is being questioned by many current researchers and educators. Even in the early 1900's there were a few investigators whose views did not coincide with the skills approach to reading. Notable among them were Huey (1908) and Thorndike (1917) who generated the interrelated and complex concepts of reading that have since formed the basis for much of the recent research and theorizing about reading. In 1908 Huey said, "We have surely come to the place where we need to know just what the child normally does when he reads, in order to plan a natural and economic method of learning to read" (p. 9). E.L. Thorndike in 1917 viewed reading in the following way.

Reading is a very elaborate procedure, involving a weighing of each of many elements in a sentence, their organization in the proper relations one to another, their selection of certain of their connotations and the rejection of others, and the co-operation of many forces to determine final responses. In fact ... the act of answering simple questions about a simple paragraph includes all the

features characteristic of typical reasoning. (1917, p. 323)

Many of the researchers and educators who criticize the traditional view of reading in the schools are supporters of a discipline known as psycholinguistics. Wingfield, Rudorf, and Graham (1979) state that only recently has it become recognized that there are established academic disciplines relevant to the reading process – the disciplines of linguistics and psychology. The overlapping of these disciplines have given rise to the relatively new field of psycholinguistics. Cooper and Petrosky (1976) define psycholinguistics.

> Psycholinguistics is not a method of teaching reading. It is the marriage of two sciences: the science of cognitive psychology and the science of linguistics. Cognitive psychology explores the workings of the human mind, linguistics explores the nature of human language. Unlike behavioristic psychology, cognitive psychology views learning as an active, selective process. Linguistics ... classifies language into two major aspects: surface structure and deep structure. Surface structure is (for print) the visual configurations on the page. Deep structure is, simply, the meaning of what is printed on the page. (p. 185)

Insights of the kind found in linguistics and psychology appear to be leading to a profound review of long-held beliefs about reading and how it is learned. It is becoming clear that reading is not a process of combining individual letters into words and strings of words into sentences, from which meaning springs automatically. Rather, the evidence is that the deep level process of identifying meaning either precedes

or makes unnecessary the process of identifying every word (Smith and Goodman, 1970; Smith, 1973).

Psycholinguists are concerned with the reading process and the ways in which an understanding of the process can affect teaching and learning. Melvin (1979) contends that reading does require that the reader see the print but also the reader must contribute what he or she already knows about reading, about the language in which the material is written, and about words in general. The knowledge of the language is the primary contribution that a reader makes to the art of reading.

The psycholinguistic view regards reading as a process for which the reader uses certain strategies to bring meaning to print. In order to use these strategies the reader has to integrate language cues: graphophonic, syntactic and semantic. The graphophonic system refers to the relationship between the sounds of language and the written form. The phrase syntactic system refers to the interrelationship of words, sentences, and paragraphs and includes the interrelationships of word order, tense, number and gender. The semantic system includes the relationships within a language that establishes meaning for the user (Goodman and Burke, 1980).

Readers use these language cues as they try to discover what the author means, while at the same time, building meaning for themselves. The reader, when engaged in the reading process, repeatedly uses three types of interrelated

strategies: predicting, confirming/disconfirming and integrating. First the reader predicts by selecting the most significant graphophonic, syntactic, and semantic cues. No reader uses all the available cues and the interaction of these cueing factors within the reading process occurs so rapidly as to appear simultaneous. Next, as predictions are made, readers test their hypotheses to see if they are meaningful. To do this, they confirm or disconfirm their predictions. Readers ask themselves if it sounds like language and does it make sense. If it does, the reader carries on. If it doesn't, a reader can employ any one of a number of strategies. The reader can: (a) stop and rethink the problem; (b) regress, reread and pick up additional cues until the material does make sense; (c) keep on reading in order to build up additional content; and (d) stop reading the material because it is too difficult. Following confirmation, a reader continues and employs integrating strategies. Here the reader is continuously making choices about what chunks are to be remembered. The choices are always related to the purpose set. A reader builds up meaning for what he is reading which he incorporates into his storehouse of knowledge or schemata (Goodman and Burke, 1980).

Duffy and Roehler (1987) synthesize psycholinguistic reading strategies into two types. The first type is activated before reading actually begins. For instance, before reading a text, good readers use what they know about the topic, the type of text, the author's purpose and their

own purpose to make a prediction about the content of the text. Other strategies, called repair strategies, are activated during reading whenever meaning is blocked by unknown words, by predictions that turn out to be incorrect, or by a disruption in the reader's train of thought. Such situations are problems which good readers solve by activating repair strategies to remove the blockage.

Whole Language Approach

From the psycholinguistic view comes an approach to the teaching of reading and writing that has been termed "whole language". Advocates of whole language believe that language is not learned in bits and pieces and since reading is a language activity, it should not be learned in bits and pieces. Children and teachers can become lost in the maze of subskill lessons, losing sight of the whole, or complete act of fluent reading. Whole language advocates base their position on a communicative or language-based definition of learning to read. They state that the whole of language is not the sum of its parts. When teaching reading from a whole language view the teacher must select methods and materials that allow him/her to do the following (Searfoss & Readence, 1985, p. 92).

1. Provide children with a genuine, real purpose for reading.

2. Produce children who can and do read.

3. Stress the functional purpose of reading instead of terminology and labels.

4. Supply in the classroom a wide variety of relevant, natural forms of print from the world outside the classroom.

5. Keep meaning or comprehension as the center or focus for instructional lessons.

6. Recognize that language systems (graphophonic, syntactic, and semantic) operate together as inseparable parts of whole language.

7. Use materials to teach reading that are whole samples, such as complete stories, rather than offering isolated practice in bits and pieces of language.

Current researchers and educators who are proponents of this approach feel that for too long schools have ignored many of the fundamentals of learning (Baskwill and Whitman, 1986). They suggest that when adults take children's language acts seriously and provide an atmosphere of security and support in which risk-taking is rewarded, children have little trouble learning to read. When children see the important people in their lives (teachers and parents) engaged in reading and writing they are eager to follow the models and practice the same behaviour for their own satisfaction. This is what whole language promotes.

A rationale for teaching using the whole language approach is presented by Baskwill and Whitman (1986) who say that learning is an interactive process where children learn by experimentation, by experiencing and then by the refining of that experience. If children are to become literate, they must be given the opportunity to experience and experiment with all the different facets of reading, writing, listening and speaking.

The whole language philosophy places children at the centre of the curriculum. This requires the teacher to structure a classroom environment which is "child-centered, language-centered and literature based" (Anderson, 1984, p. 6). The following daily activities are ways of providing these structures.

1. Teachers read to students daily because this provides a model for students' reading and writing. The teacher can model predicting, confirming/disconfirming and integrating strategies using high quality literature from the various genres of children's literature.

2. Teachers ensure that students read silently every day from a variety of self-chosen materials which should include not only literature based stories but functional materials such as menus, catalogues, manuals for "how-to-do-it", magazines, songs, maps and many others. The teacher also reads silently at this time to portray to children that reading is enjoyable (Shapiro, 1979).

3. Students write every day to become aware of the link between reading and writing. Children learn to write by writing and also by reading.

4. A sharing time every day provides children with the chance to share their book experiences and their writing experiences with the class.

In the three foregoing sections of the thesis--the criticisms of basal readers, the psycholinguistic view of reading and the whole language approach--it was shown how a whole language tradition emerged. In fact the whole language movement is of recent origin. One of the first papers to vigorously criticize the basic skills approach was presented by the President designate of the International Reading Association at the IRA World Congress in Reading, Singapore, 1976. It was entitled "Who Skilled Cock Robin?" and advocated a wholistic or naturalistic approach to the teaching of reading, with emphasis on reading for meaning, rather than on the mastery of discrete reading skills.

The movement began to take-off in lighthouse schools and innovative classrooms in the late 1970's and early '80s. In St. John's a group of teachers in grades one and two at the Macdonald Drive Elementary School--Mrs. Shirley Castella, Mrs. Glenda Ripley and Mrs. Margaret Ryall--had introduced a modified whole language curriculum in 1981, and by the 1982-83 school year had completed the switch from a basal reader approach to a whole language approach both in regular classrooms and in special education contexts. At the same time other schools in St. John's and elsewhere in the Province were following suit. In some schools it was an individual teacher, in others all the teachers in a grade would introduce the approach together as at Vanier School in grade three. An integrated curriculum would be tried in the first year of these experiments with perhaps three or four different themes.

If the teachers found the approach working in practice, it would be extended in subsequent years. usually, after the third year a complete curriculum switch had been achieved.

Because the movement is so recent and because little empirical work evaluating the whole language curriculum has been conducted, informed criticisms of whole language are effectively nonexistent. In fact, this thesis is the first study of the effectiveness of whole language in a rural setting that the author is aware of. This is not to say that criticism of psycholinguistic theory is nonexistent. The first critique appeared in The Journal of Reading Behavior (Wixon, 1979). This author drew attention to the importance of situational variables such as instructional method and the content of the written material when measuring a child's miscue patterns.

Almost a decade later Norris and Phillips (1987) showed how critical thinking theory provided a more informed explanation of children's reading comprehension than standard psycholinguistic theory in the schema theory tradition. Schema theory was used by psychologists to show how children's vocabularies developed and how children made inferences as they read. More recently in a paper presented at an international symposium Beebe (1988) identified some four problems associated with the introduction of whole language.

First, she notes that misconceptions about what constitutes whole language teaching arise because some teachers are unfamiliar with the theoretical rationale on

which whole language activities are based. . Second, some teachers believe that individual reading and writing activities are wasteful of children's time compared to traditional methods which involved the teacher conveying knowledge and having children complete work books and work sheets. A third misconception concerns the idea that when using whole language letter-sound relationships need not be taught; that children will pick up a knowledge of phonics without any teaching. While some will, most will not. Fourth, there is the idea that children do not need to be shown how to focus on individual words or letters. Since whole language advocates insist that language should not be broken down into discrete parts, it does not mean that there is no need to select and focus on individual words or letters.

In sum, Beebe is arguing that teachers must familiarize themselves with the theory underlying whole language; and, further, that teachers hostile to the introduction of whole language should be allowed to change gradually rather than in one full swoop.

Children's Literature.

It has been suggested that in a whole language classroom, children's literature is the main vehicle for reading and writing activities. Newman (1985c) states, "Children's trade books are the cornerstone of a whole language curriculum. Such a program requires the availability in the classroom of a large number of different titles (both factual and fiction),

many in multiple copies" (p. 64). Whole language programs recommend that students be given many opportunities to participate in independent reading of self-selected material.

For many years a variety of educators and researchers have extolled the merits of using children's literature to teach reading (D. Smith, 1964; Arbuthnot, 1957; Huus, 1972; Koeller, 1981; L.B. Smith, 1982; Rosenblatt, 1982; Huck, 1962, 1977, 1979, 1982; and Cullinan, 1987). Typical of these is Charlotte Huck who in 1962 suggested that elementary teachers had all but forgotten that the most important reason for teaching boys and girls to read is to help them to become readers. Considerable evidence points to the fact that our schools are teaching the skills of reading but have not been helping boys and girls develop the habit of reading. A planned literature program in the elementary school provides a firm foundation for future literary experiences.' Fifteen years later Huck (1977) was still stating the need for literature to be the content of the reading program. "I believe that the motivation for learning to read is real books and that imaginative literature must be the content of the reading program" (p. 363). Perhaps the greatest value of using literature in the reading program is that children experience joy in reading and become "hooked on books".

Huck continued to advocate literature based reading programs and in 1979 she connected psycholinguistics and children's literature. "Psycholinguists are telling us that reading is a response to real, meaningful language. There has

to be enough of it available for the reader to anticipate, expect, and predict for meaning to emerge" (p. 34). Literacy can be achieved through literature by a teacher: (a) reading good literature to her students everyday; (b) providing time everyday for children to read books of their own choosing; and (c) planning time for children to share books. Huck (1982) reiterated the importance of using literature to teach reading and expressed concern for instruction with a major emphasis on skills when she contended that somewhere the teaching of reading became separated from the use of real books and became equated with learning basic skills. Instead of going back to the basics and giving children more skills, we should free children to discover the pleasure in reading by developing a literature based reading curriculum.

Children become eager readers when exposed to children's literature. Five (1986) conducted a study in which she introduced children to a reading program that was comprised of children's literature. The children were given time to read books and to make meaning through talking about books and through writing using dialogue journals. These students learned about many authors and tried to imitate their techniques in their own writing. Some indication of the students' interest and joy in this type of program was the large number of books they read during the year.

The research and theory supporting a literature based reading program is accumulating. Many reading methodology textbooks can be found which suggest this approach. In the

book <u>Children's Literature in the Curriculum</u>, Montebello (1972) says:

> Consistent use of children's literature in the reading program, both before they begin to read and at each step of the developmental process, should be characteristic of any reading program in the seventies. Trade books must be central in the instructional program. (p. 24)

Rudman (1976) suggests that an individualized or personalized reading program is necessary for children to learn to read and to enjoy reading. She proposed a reading program that involves self-selection and self-evaluation.

> Choice of reading material implies a different book for almost every child; it therefore follows there is no expectation of uniformity of rate. Each child, reading at a separate pace, finishes a different number of books at any given time from the other children... . The learning of reading, therefore, becomes a question of individual interest rather than of group conformity. (p. 362)

Bagford (1985) reiterates this when he states that in a well-balanced reading program pupils at every grade level should have some regularly scheduled time to read something of their own choosing whether in the form of individualized reading with regularly scheduled pupil-teacher conferences, uninterrupted sustained silent reading or something just termed pleasure reading.

Reading.

In a whole language approach children are surrounded with reading material. The cornerstone of this is children's literature but children must be exposed to all sorts of print such as newspapers, magazines, menus, telephone directories

and television viewing guides. Goodman (1986a) suggests that whole language materials are anything that children need or want to read or write. He states:

> Lots of recreational books are needed, fiction and non-fiction, with a wide range of difficulty and interest, and resource materials of all kinds, some particularly prepared for use in schools (like beginners' dictionary and encyclopedia) and some real world resources (like phone books, TV guides and adult reference books). (p. 33)

For the most part the child selects his/her own material but the teacher monitors and intervenes where necessary to ensure that the child has experiences with the different types of reading materials.

Instead of teaching skills, whole language teachers integrate the teaching of skills into their children's daily reading. The purpose is to help them develop reading strategies that they can apply implicitly and independently. Judith Newman (1985d) gives suggestions on how to help students develop more fluent reading strategies. She states that the one major objective should be to help them overcome the obstacle of unknown words. We need to help students understand that the meaning of the whole does not depend upon being able to identify every word. There are a number of strategies available here. They can: (a) try reading on to see if what comes later in the passage offers more information; (b) try substituting a "placeholder" - something that makes sense - until some new information makes it necessary to try something else; (c) choose to reread to see if they have missed something which would help specify the

meaning; or (d) decide to make no decision for the moment but to read on and later return to what is unfamiliar to see if it seems crucial. As students become fluent readers, they learn to take risks, to ask the essential question, "Is this making sense to me?".

Writing.

Reading and writing are closely connected in a whole language classroom. Hence, children not only learn to read by reading and to write by writing, but they also learn to write by reading and to read by writing (Smith, 1982, 1983b; Newman, 1984, 1985b). Learning to write is a language activity that parallels learning to read and to talk (Cochrane, Cochrane, Scalena and Buchanan, 1984). It is widely accepted that children learn to talk by being immersed in oral language. This provides the model they use to gradually become proficient talkers. In a whole language classroom, the children are immersed in oral and written language. The oral language is in the form of class or group discussions, teacher-pupil conferences, taped stories in the listening center, visits from community members, music and so on. This rich oral language environment will partially provide the language model for children to follow when writing. The children are also immersed in written language in the forms previously outlined (stories, magazines). All of this provides them with the written model to complement the

oral language model. Together these serve as demonstrations for the children's own writing.

As a result of work by Glenda Bissex (1980), Donald Graves (1983), Frank Smith (1982, 1983b) and other researchers and theorists, teachers are recognizing that writing involves more than the finished piece. Writing is viewed as a process. Language Growth, published by the government of Newfoundland and Labrador in 1982, states that the writing process has four distinct stages: pre-writing, writing, revising and editing. For publishable writing, Language Growth has sectioned the writing process into the following steps.

1. The initial step, experience, is the first part of the pre-writing stage. This is where the purpose for writing is set. The literature that the children are involved in can supply the demonstrations and the models that they will use in their own writing. Experiences can also be drawn from ongoing classroom activities in the theme being explored at this time or in some subject area. Special events in the school year such as Education Week can also set the purpose.

2. Now that the students have a purpose for writing they are ready for the next step which is called pre-writing preparation. Here they need to generate a specific topic and think about concepts from the experience that are relevant to the topic. If the writing is to be a whole class activity, the teacher

and students can brainstorm for ideas and categorize the ideas under subheadings (Cochrane et al., 1984). If the writing is to be more individualized, then the teacher can conference with students (Bissex, 1982; Graves, 1982) to develop a topic and discuss related concepts.

3. The next stage, draft-writing, is where the students produce a first version. It is crucial that students realize that, at this point, meaning is the most important aspect of their writing. They must be made to feel comfortable with writing spontaneously without worrying about the mechanics. The teacher's role during this stage is to conference with the students so that s/he can help individuals when they are experiencing difficulty and/or compliment them on their efforts. The teacher also notes the more common surface feature difficulties the students are having. This would include such things as capitalization or word usage. From this list the teacher will select two or three items on which to provide special instruction later in the writing process. An example might be the use of capital letters when writing the months of the year or the use of the words "their" and "there".

4. When the draft is finished, the writers proceed to the next step which is revising. Here they read their first drafts in order to determine if they

have written what they really intended to and even if the writing is complete. Each student (with the teacher's help) determines if the piece of writing conveys what was intended. It is important that they realize that only the author can revise a piece of writing, although they may accept suggestions from the teacher or fellow students.

5. Once the revision is complete, the writer is ready for the next phase, editing. But before the actual editing is done, the teacher will instruct the class about the surface features that have been selected for concentration. The students then edit their own piece of work. This means moving from a first draft to an improved second draft. The writer, with the help of the teacher or a fellow student, reads through his/her piece and corrects the surface feature errors that are found. It is important here that students realize that, unlike revising, editing can be done by someone other than the author.

6. The next step, rewriting, is where the students prepare their work for publishing by carefully transcribing what they have written into a final copy. It is really a recopying of a revised and edited piece of work.

7. The final stage in the writing process is publishing. It is important that the students share their finished piece of work with an audience.

According to Frank (1979), children should have the opportunity to share every finished draft because this advertises the importance of the writer, and of the thoughts, beliefs and the effort that have gone into the writing. There are a variety of ways and places to publish students work depending on the type of writing. A story written for a young audience could be shared with the kindergarten class by having the author read it aloud during story time. A report, such as one on pets, could be put in the class library. It is the publishing which makes the process of revising and editing meaningful.

Although children write everyday in a whole language classroom, not every piece of writing goes through the complete writing process. Some pieces can be stored away to be worked on later. Other writings, such as journal writing, are considered to be free writing and are not meant to be taken through the process.

Many researchers contend that the development of writing, like a reader's development, does not go from part to whole. Bissex (1980) suggests that, rather than being the product of an instructional skills sequence, the development of writing is part of the overall development of the person. Her study indicates that the observation of personal and developmental characteristics is a crucial part of the teacher's function in helping children to progress in writing.

Spelling.

A frequent source of misguided concern in writing development is the traditional belief that children cannot write until they can spell conventionally. Cochrane et al. (1984) report two opposing beliefs regarding spelling. On the one hand is the idea that all of the students' written work should be checked by the teacher and that all misspellings in written work should be corrected. On the other hand is the belief that children should be given freedom to write and should not be inhibited in their writing by demands for the correct spelling of every word. Whole language teachers support the latter point of view. Bissex (1980) contends that spelling ability grows from understanding how the spelling system works and cannot be accounted for as the product of memorized lists of unpredictably spelled words. Therefore, spelling errors need not be feared as entrenching "bad habits". She states that the correct spelling of words will evolve through a series of changes. "This capacity for change - for revising one's understandings systematically - characterizes all learning..." (p. 111). Changes in spelling often result from children's perceptions of differences between their spellings and those they see in print, and from changes in their understanding of the orthography. Teachers need to view children's spelling errors as developmental in nature and as a step in the progress toward conventional spelling.

Cochrane et al. (1984) provide a rationale for promoting pupils freedom to write. They say that writing and reading are interrelated, improvement in one generally leads to improvement in the other. In an integrated language arts program (a whole language program), students are expected to write more than in the traditional type program. This creates difficulties because students' ideas and oral language are usually more advanced than their ability to spell. Therefore, it necessitates the acceptance of non-standard (or functional) spelling of some of the words they need to write. To do otherwise might be counterproductive, for as Newman (1985b) states, "An overemphasis on accurate spelling, punctuation and neat handwriting can actually produce a situation where children come to see the conventions of writing as more important than the meaning they are trying to convey" (p. 28). At the same time it is the teacher's responsibility to take advantage of every opportunity to help students discover the structure or spelling patterns in words.

There are recent studies which investigate the development of spelling strategies by children. Scibior (1986), for example, looked at the spelling strategies used by a group of third grade children. By watching the children as they tested their hypotheses, tried out their own rules, and solved their own spelling problems, she came to question the utility of assigning lists of unrelated words to be memorized for a weekly test as a means of helping children to learn to spell. From the study Scibior learned that

children's spelling development does proceed naturally if they are allowed to write frequently and to spell functionally. This would seem to confirm the idea that learning to spell is a function of experience, and that the best way to help spelling development is to encourage the children to use their own judgment about how to spell, and to let them read and write.

Silvers (1985), in an investigation with a third grade class of low reading ability readers, tried out the process based philosophy of writing. Spelling was ignored until the editing conference prior to publishing. Editing consisted of mini-lessons about mechanics including spelling. At first, invented spelling was used. The students then spent time correcting their own errors as well as they could. Finally, the teacher assisted them in order to ensure a conventionally spelled piece of writing. The idea was that any writing to be published would need to be spelled and written conventionally. The students in this study experienced success by expressing themselves through writing and by being published. The study indicated that in process based instruction, rather than being ignored, spelling, like reading and writing, develops naturally and interdependently with the teacher monitoring the process and intervening when necessary.

Using Themes to Organize Whole Language Teaching

If children are going to use a wide variety of real language to learn how to become independent readers and

writers, some vehicle must be found to organize the curriculum. McCracken and McCracken (1972, 1979), Rhodes (1983), Doake (1986), Baskwill and Whitman (1986), and Goodman (1986a) propose a thematic approach. McCracken and McCracken differentiate between a theme and a unit. A unit has a planned beginning, middle and end which implies little input by the students. A theme has only a beginning with the reaction of the children determining the middle and the end. Rhodes (1983) chooses an approach in between these two extremes with her choice of "the thematic unit". Rhodes explains her choice this way.

> If effective language learning occurs while children use language as tools to learn about the world, a curricular vehicle must be utilized that will encourage exploration of the world through the use of reading, writing, listening and speaking. Such a vehicle is the thematic unit; a type of curriculum that focuses on the exploration of a number of related concepts. The theme for the unit can be selected because it is a required curricular topic, because the teacher knows it will inspire the children's interests and fulfill some of their needs, or because the children themselves suggested it. (p. 84)

Doake (1986) sees thematic studies as a natural way of integrating the curriculum in the intermediate grades where the students are able to work more independently than young children. Themes provide for an economical use of time, opportunities for students to work collaboratively and independently, and lead students and teachers to make use of a wide range of resources both inside and outside the classroom. Baskwill and Whitman (1986) state that any major theme has a wide range of focus under which individual

interests can be accommodated. Themes also provide the incentive and opportunity to assemble the wealth of materials so crucial to whole language classrooms. Goodman (1986a) states:

> Whole language teachers organize the whole of or a large part of the curriculum around topics or themes... . A unit provides a focal point of inquiry, for use of language, for cognitive development. It involves pupils in planning and gives them authentic, relevant activities within productive studies. (p. 31)

Language Arts in the Elementary School (1986), a curriculum guide produced by the Nova Scotia Department of Education, suggests that a thematic approach enables a teacher to provide integrated language arts experience as well as build upon children's natural interests. This guide suggests:

> In a thematic approach, children use language to explore a topic and through the process learn about language. They engage in a variety of activities to develop and refine concepts related to the topic. Through these experiences, they gain a broader background knowledge. (p. 15)

Assessment in Whole Language

Whole language teachers are constantly assessing both their students and themselves. According to Baskwill and Whitman (1986) assessment means gathering and recording information, evaluating that information in terms of an individual's progress and reporting the findings to parents, colleagues and administrators. The focus of the whole language assessment is on the individual. The whole language teacher is interested in what a child's abilities are upon

entering the classroom, and what they are when a child moves
on. To this end, Baskwill and Whitman (1986) suggest several
tools such as anecdotal records and informal observations
which are dated and kept in students' folders, cassettes
(audio and video) which provide an excellent record for
discussing a child's literacy development with other parties,
logs of books read, and scrapbooks which contain samples of
a child's work.

Goodman (1986a) believes that whole language teachers
are "kid watchers". Informally and formally they evaluate
and revise their plans on the basis of the kid-watching they
do.

> Informally, in the course of watching a child write,
> listening to a group of children discuss or plan
> together, or having a casual conversation, teachers
> evaluate. It even happens while children are
> playing. It happens more formally on one-to-one
> conferences with pupils about their reading or
> writing, as teachers make anecdotal records of what
> they observe. It may involve instruments like the
> Reading Miscue Inventory or a writing observation
> form. The key is that it happens in the course of
> ongoing classroom activities. (p. 41)

Evaluation is an integral part of the implementation of a
whole language curriculum. Holdaway (1979) suggests,
"Literacy is a process - it has no content. Progress in
literacy should, therefore, be evaluated from the point of
view of process, with strong emphasis on monitoring the
development of self-regulative behaviour in terms of reading
and written-language tasks" (p. 215).

Correlates of Reading

The type of curriculum is merely one of the many variables influencing literacy development. Thus, before one can conclude that one type of curriculum (the whole language approach) is superior to another curriculum (the basal reader approach) it is necessary to take into account other possible explanations. Hence, this study will consider the influence of cognitive ability and socio-economic status on literacy development.

Cognitive Ability

That intelligence is the main determinant of success in school is one of the most controversial theories of school achievement. This theory was developed by psychometricians such as Binet, Spearman, Terman, Cattell and Wechsler who developed intelligence tests to predict scholastic success (Bulcock, 1986). According to Wechsler (cited in Harris and Sipay, 1975), "Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment" (p. 242). Harris and Sipay (1975) state:

> Most psychologists believe that the intellectual functioning of an individual involves the intimate interplay between an unborn potential for development, which varies from one person to another, with environmental conditions which strongly influence the degree to which this potential is used. (p. 242)

Intelligence tests are used to determine a child's mental age which is then compared to the child's chronological age to arrive at an intelligence score (I.Q.). A widely used individual intelligence test is the Stanford-Binet, first published in 1910. This test was revised a number of times for a variety of reasons (Cole and Hall, 1964). Since that time group tests of intelligence such as the Canadian Cognitive Abilities Test have been developed because the individual test was too time consuming to administer.

Spache (1976), however, contends "The relation of mental and chronological ages that yields the I.Q. does not necessarily reflect the learning rate of the subject or the rate at which he will progress" (p. 80). He states that reading success is more dependent upon instructional methods and the degree of personalized attention, than upon mental age. Pupils with similar mental ages will not necessarily make the same progress under the same method or organizational pattern.

Socio-economic Background

Sociologists have long argued that the resources of the home (income, occupational prestige, and education) govern the effectiveness of transactions between teachers and their pupils in school. Parents can help their children acquire reading skills. One way is by providing appropriate reading materials in the home. A review of pertinent research carried

out by Wigfield and Asher (1984), indicates that there is a positive relationship between the number of books in the home and the children's reading ability. These researchers also report that studies have shown that parental involvement in reading to their children and parental provision of reading material predicts later reading ability. More recent research supports this stance. Greaney (1986) reports:

> Parents have an important contribution to make, both in the development of reading skills and encouraging the leisure reading habit. This they can do by introducing the child to the printed word, by creating an environment which helps to foster reading by providing opportunity, space, materials, encouragement, and example. (p. 817)

An important factor governing the home reading environment of children is social class. Briggs and Elkind (cited in Wigfield and Asher, 1984) noted that parents of early readers were more likely to be middle class and upper class than lower class. Miller (cited in Wigfield and Asher, 1984) interviewed mothers about children's prereading experiences and, in comparison to lower-class mothers, middle class mothers reported that their children had been read to more and had more contact with books and other reading-related materials in the home. These kinds of experiences likely provide middle-class children with more positive attitudes toward reading. According to Wigfield and Asher (1984), studies show the following.

> Higher-SES parents are more likely to be involved in the kinds of activities that promote skills and interest in and positive feelings about reading. Middle-class children are more likely to come to school with the idea that reading is an important activity. They are more likely to be familiar with

reading-related materials and they have been exposed
to parental teaching styles that foster school-
relevant cognitive skills and motivational styles.
(p. 433)

Currently, the role of the home in helping children's

literacy development is receiving much attention. Spewock

(1988) reports on a program developed in the United States to

train parents to work with their preschool children through

children's literature in order to prepare their children for

school. This program proved to be an effective approach

towards achieving parental involvement in the early education

of children. Whole language proponents believe that the

ability to read develops naturally given the proper conditions

and that the home environment, in many cases, can be a model

for the school environment. Doake (1986) suggests that:

> We should view learning to read as an outcome of
> the children's natural experiences with written
> language in the home which the school then extends
> and develops. Teachers would do well to examine in
> some detail the characteristics of homes which
> produce children who either learn to read before
> they go to school or whose learning proceeds with
> ease after they enter school, regardless of the
> nature of the instruction they receive. (p. 2)

CHAPTER III

RESEARCH METHODOLOGY

The purpose of this chapter is to present the hypotheses of the study, to describe the sample and to discuss the variables and the instruments used to measure them. Following that, the materials and the instruction procedures used during the two years of the study are described.

Hypotheses

The hypotheses for the study stem from the questions posed in the first chapter and are supported by the research presented in chapter two. The first three hypotheses are related to the types of curriculum used in the study.

Hypothesis 1: The reading comprehension ability of children exposed to a whole language approach will be greater than the reading comprehension ability of children exposed to a basal reader approach, other things equal.

Hypothesis 2: The writing ability of children exposed to a whole language approach will be greater than the writing ability of children exposed to a basal reader approach, other things equal.

Hypothesis 3: The spelling ability of children exposed to a whole language approach will be greater than the spelling ability of children exposed to a basal reader approach, other things equal.

Other variables besides the type of program used can affect literacy development. In this study, these variables are referred to as the correlates of reading. The following hypotheses are related to two specific correlates: cognitive ability, and socio-economic background.

Hypothesis 4: The reading comprehension ability of children is responsive to cognitive ability.

Hypothesis 5: The writing ability of children is responsive to cognitive ability.

Hypothesis 6: The spelling ability of children is responsive to cognitive ability.

Hypothesis 7: The reading comprehension ability of children is responsive to socio-economic background.

Hypothesis 8: The writing ability of children is responsive to socio-economic background.

Hypothesis 9: The spelling ability of children is responsive to socio-economic background.

The Sample

This study was conducted over a two year period in a multigraded (grades four and five) classroom in rural Newfoundland. The sample consisted of two groups of students. The first group was made up of 21 children who were in the class during the 1986-1987 school year. This group, the control group, had 12 grade four students whose ages ranged from 9 years 1 month to 11 years 6 months as of December 31, 1986. Two students in grade four had repeated. One repeated grade one and the other repeated kindergarten and grade four. The 9 grade five students' ages ranged from 10 years 2 months to 12 years 8 months as of December 31, 1986. Included in grade five were two repeaters as well. One repeated grade four and the other repeated kindergarten and grade two.

The experimental group consisted of the 18 children in this classroom during the 1987-1988 school year. There were 8 grade four students in this group whose ages ranged from 9 years 1 month to 10 years 8 months as of December 31, 1987. Two from grade four had repeated one year. One repeated kindergarten and the other grade three. The rest of the group was made up of 10 grade five students whose ages ranged from 10 years 1 month to 12 years 6 months. There were two repeaters in grade five. These ten children were also part of the control group the previous year. This was unavoidable since all classrooms within the school contain two grade levels and the classroom in which the study was conducted

happened to house grade four and five. Hence, the grade fours in the control year had to become the grade fives in the experimental year. For the two years, both groups had the same teacher for the two years who was responsible for all subjects except French, physical education and music.

Variables and Instrumentation

The study was designed to determine whether the basal reader in use, which claims to be whole language oriented, or a whole language approach using themes, functional reading materials and children's literature would be more successful in developing literacy within a multigraded classroom in a rural setting. The variables included were reading comprehension ability, writing ability, spelling ability, treatment, cognitive ability and socio-economic status.

The tests (See Appendix A) used to measure these variables were as follows: the reading comprehension subtest of the Canadian Tests of Basic Skills; the Thematic maturity subtest of the Test of Written Language; and the Schonell Graded Word Spelling Test. See below for detailed information on each test. The reliability and validity of each test are given in the respective test manuals. Those for the Canadian Tests of Basic Skills are so well known (reliabilities greater than 0.90 are reported for all subtests including reading) that the omnibus instrument is now widely used as the

criterion when Canadian test makers wish to establish the criterion validity of a new instrument.

Nevertheless, the reliabilities and validities of the TOWL and Schonell instruments are less well-known. The internal consistency of the TOWL instrument was conducted separately for each age group. All were greater than 0.80 and for the two age groups represented by the present study the reliabilities were .86 or higher. Test-retest reliability for the thematic maturity component of the TOWL instrument was reported as 0.74 for elementary grade pupils. The criterion validity was established by the thematic maturity component being correlated with the Picture Story Language Test (Myklebust, 1965). In a preliminary study it was a modest 0.31; but in later studies criterion validity coefficients ranged from 0.57 to .73 for five coefficients with a median of 0.61 and a mean of 0.63 (Hammill and Larsen, 1983, p. 18).

Less is known about the Schonell instrument though it is extensively used in reading clinics throughout North America including the one in the Department of Curriculum and Instruction at Memorial University. It is also a standard diagnostic tool used by the professional staff of the Faculty of Education's Diagnostic and Remedial Unit. According to Nesbit (1959) although the manual does not report reliability coefficients for The Graded Word Spelling Test, in a personal communication with the author the test-retest reliability on 195 children (age unspecified) was 0.96.

The writer has been unable to find validity data but note that the correlation of spelling with writing and reading in the present study was 0.61 and 0.52 respectively. this suggests that the concurrent-validity would be far higher. Since the words used in the test were drawn mainly from the Schonell Essential Spelling List; and since the ten words chosen for each age group had been spelled correctly by between 45 and 55 percent of the group, one may assume that the content validity of the test was carefully controlled. Perhaps the most important feature of the Schonell instrument is that it is widely used by clinicians in the English speaking world and has been for over thirty years.

Dependent Variables

There were three outcome variables; namely, reading comprehension, writing ability and spelling ability. The tests used to measure the variables were administered in early October for the pretest and in late May for the post test during each year of the study.

Reading Comprehension.

Reading comprehension was measured by a subtest of the Canadian Test of Basic Skills (CTBS). This subtest consists of both narrative and expository graded reading passages. It is a multilevel test, hence, the grade four subjects did Level 10 which required them to read a number of passages and then

to answer a maximum of 49 multiple choice questions in 42 minutes. The grade five subjects did Level 11 and were required to answer a maximum of 54 multiple choice questions in 42 minutes.

According to King, Hieronymus, Lindquist and Hoover (1982), the authors of the test, the reading comprehension subtest measures the students' abilities on 16 skills which can be classified into three major divisions; namely facts, inferences and generalizations. Skills involving the understanding of factual details and relationships were represented by questions of the who, what, when, and where type. The second major class of skills, inferences was represented by why questions. The skills in the third category, generalizations, involve higher order questions and were concerned with such things as main ideas, organization, purpose, and viewpoint of the author.

Each item on the test was worth one point. The raw score (number of items answered correctly) was converted to a developmental score (grade equivalent) for the purpose of this study. The CTBS was normed from scores derived from a large Canadian sample which was chosen to be representative of all provinces and of varying school size.

Writing Ability.

The writing ability variable was measured by the thematic maturity subtest of the Test of Written Language (TOWL).

According to the authors of the test, Hammill and Larsen (1978), "The ability to write in a logical sequential manner is basic to effective communication. This subtest measures a student's ability to write in a fashion that will easily and efficiently convey meaning" (p. 11).

The raw score for this subtest was based on an analysis of a story written by the children on their interpretation of three sequential space pictures that were given in a test booklet. Although there was no time limit on this subtest, it was completed in approximately 30 minutes. The results of the subtest were evaluated by determining whether the student met the criteria given in the administrator's manual. The 20 criteria items used for evaluating the writing are listed below (Hammill and Larsen, 1978).

1. Writes in paragraphs.

2. Mentions any objects shown in the pictures given.

3. Gives personal names to main characters.

4. Gives proper names to robots, spaceships, planet migrated from, etc..

5. Indicates why the planet's environment is becoming hostile to life.

6. Writes an integrated story about all three pictures.

7. Writes a story as part of a dream sequence.

8. Writes a story that has a definite ending.

9. Mentions that the characters are building a new life.

10. Explains the role of the spacelings.

11. Gives personal names to spacelings.

12. Tells or implies where spacelings come from.

13. States or implies that the humans and spacelings have a harmonious relationship.

14. Uses some futuristic or space language.

15. Expresses some philosophic or moral theme.

16. Has a title.

17. Uses dialogue.

18. Attempts humor.

19. Relates a plot that is not directly implied in the picture.

20. Attempts to develop the personalities of one or more characters.

Each of these items was given one point and the raw score was then converted to a grade equivalency score. The ceiling for this test was a grade equivalent of 8.9 which required that a student achieve a score of eight out of a possible score of 20. A number of students scored more than eight which indicates they were writing at a level greater than 8.9.

Spelling Ability.

Spelling ability was measured by the Graded Word Spelling Test (Schonell, 1955). This test consists of a list of 100 words that are grouped in tens to represent grade levels from one through ten. These words are dictated to the students.

Before the students write a word they hear it three times;
first in isolation, then used in meaningful context, and again
in isolation. The investigator continues dictating words
until each student believes s/he has missed ten words in a
row. Each correct spelling is given one point. The raw score
for this test is converted to a grade equivalency score by
dividing the number of correctly spelled words by ten. For
this particular study, the investigator began with the grade
two list thus assuming the children knew all the words in the
grade one list. This meant that ten was added to each child's
raw score before it was converted to a grade equivalency
score. For instance, if a child had 30 words correct, the
investigator gave credit for 40 and divided by ten to obtain
a grade equivalency of 4.0.

Independent Variables

The independent variables in this study were treatment,
cognitive ability and socio-economic status. Each variable
is discussed in turn.

Treatment.

The treatment variable was whether the children were in
the control group which received the basal reading instruction
or the experimental group which received the whole language
instruction. This variable was scored by assigning the value
of one to the control group and two to the experimental group.

Cognitive Ability.

 Cognitive ability was measured using the Canadian Cognitive Abilities Test (CCAT) during the latter part of January each year. According to the examiner's manual, "The Canadian Cognitive Abilities Test provides a set of measures of the individual's ability to use and manipulate abstract and symbolic relationships" (Thorndike & Hagen, 1980, p. 3). It consists of three batteries of subtests: (a) the Verbal Battery which provides a measure of ability to deal with abstractions presented in verbal form; (b) the Quantitative Battery which assesses the child's ability to work with quantitative concepts; and (c) the Nonverbal Battery which is entirely pictorial or diagrammatic in nature and permits appraisal of abstract intelligence which is not influenced by reading ability.

The CCAT is a multilevel test which makes it possible to use in any school setting. Each level is easy enough to provide some experience of success for any examinee but hard enough to challenge the more capable student. For this study the investigator used Level B with the grade four subjects and Level C with the grade five subjects. Both levels contained 100 items in the Verbal Battery which was allotted 34 minutes in actual working time. This battery was comprised of four subtests; namely, vocabulary, sentence completion, verbal classification and verbal analogies. The Quantitative Battery which contained 60 items for each level, was allotted 32

minutes of actual working time. The subtests in this battery were quantitative relations, number series, and equation building. The 80 items for each level in the Nonverbal Battery made up the figure classification, figure analogies and figure synthesis subtests and were allotted 32 minutes of actual working time. The examiner's manual recommended three separate testing periods over a three day period. The manual also gave sample questions for each subtest for the investigator to work through with the subjects prior to the actual testing.

One point was given for each correctly answered item. This raw score was first converted to a universal standard score (USS). Then, using each child's age in January, the USS score was converted to a standard age score using winter norms which were provided in the examiner's manual. For the purposes of this study the standard age score was considered to be the equivalent of an I.Q. score.

Socio-economic Status.

The mother's and father's education level were obtained to help determine the socio-economic status of the subjects in the sample. This information was gathered during a parent-teacher conference and the findings were coded on a scale which ranged from 13 to one. Thirteen represented trades college which was the highest level of education obtained from the sample and one represented first grade of school.

The father's occupation was also obtained during the parent-teacher conference. The investigator then used a scale by Pineo, Porter and McRoberts (1977) to code the occupations. There are sixteen socio-economic categories on this scale: (1) farm labourers, (2) unskilled manual, (3) unskilled clerical-sales-service, (4) semi-skilled manual, (5) semi-skilled clerical-sales-service, (6) skilled crafts and trades, (7) farmers, (8) supervisors, (9) skilled clerical-sales-service, (10) foreman, (11) semi-professionals, (12) middle management, (13) technicians, (14) high level management, (15) employed professionals, (16) self-employed professionals. If a father was employed as a trainman with the railway, he was classified as semi-skilled manual and was given a score of four.

The investigator decided to reduce the three variables (father's education, mother's education and father's occupation) to one labelled socio-economic status. This was done by adding the values of each variable together. For example if father's occupation was given a value of six, mother's education given a value of five and father's education given a value of six, this would be a total value of 17.

The preferred measure of socioeconomic status would have been a weighted linear composite in which the relationship between the construct (SES) and its three indicators (father's education, mother's education and father's occupation) would

have been the factor loadings (lambdas) from a principal components analysis. Note, however, that after two grade four students withdrew from school at the end of the first year of the study, the total number of students in the sample was only twenty seven. In other words there were fewer than ten cases per indicator--probably too few to avoid sampling fluctuation. Since the loadings on SES composites in many studies tend to be of roughly the same order of magnitude--especially for the three indicators in question--it was decided to make the assumption that this was in fact the case; hence, the indicators were assumed to have unit weight and were added together accordingly.

Materials and Instruction

Two different approaches requiring different materials and instructional procedures were used with the two groups of subjects in this study. During the first year, the control group was exposed to a basal reader program and, during the second year, the experimental group was exposed to a teacher-produced, whole language program.

Control Group

The control group was taught using the Nelson Networks basal reader program which encompasses reading, writing, listening and speaking. This is a new program put out by

Nelson to replace the <u>Language Development Reading</u> (LDR) program which was a more traditional type basal reader series. It appears to be an attempt to adapt current reading theory (psycholinguistics and whole language) to a basal reader approach.

The two grades in the control group were taught separately using the specified texts for each grade level. This meant that each grade had the teacher for fifty percent of the time allotted to language arts. For a typical 40 minute reading period, the teacher spent 20 minutes with one grade, set them to work independently and went to the other grade. Consequently, there was very little time available for the teacher to interact with the students individually. Because the teacher was using the specified text for writing, it meant that there were two prescribed writing projects in progress at the same time for most of the school year (one for each grade level). This made it very difficult to do such things as pre-writing activities.

Basal Reader Series.

<u>Networks</u> (see Appendix B) has a number of components that endeavour to integrate the four strands of the language arts which include reading, writing, speaking and listening. Each grade has two anthologies (or readers) centered around four major themes which recur in each anthology in the series. In addition to the four themes, each book contains two other

types of groupings which are called variations. These are language fun variations which include such things as plays, nonsense poems, limericks, and genre variations designed to help children develop awareness of literary genres. The anthologies for grade four are titled Zoom Shots and Flip Flops. For grade five the anthologies are titled Ripple Effects and Time Spinners. Also included is a six part episodic science fiction series with each anthology having one part. This means the story runs from grade four through grade six.

This reading series has a component entitled Reading and How which accompanies each grade level (Reading and How A for grade four and Reading and How B for grade five). These texts present a variety of reading materials such as excerpts from books, newspaper articles, poetry, photo essays and interviews which extend each theme in the anthologies and explore with children how they read. Reading and How was designed to do three things.

1. It helps children focus on the reading process and develops their own reading strategies by providing them with direct messages on topics such as sentence content, recognizing purposes for reading and establishing strategies for reading different kinds of selections.

2. It provides practise in reading comprehension skills, particularly in reading in the content areas

by developing content area reading strategies. Some
examples are identifying the function of headings
and subheadings, noting specialized vocabulary, and
interpreting graphic devices.

3. It helps children gain additional insights into the
themes because each selection is linked to a theme
in the anthologies.

Another part of the program is the novel. The two novels
for each grade were written for this particular series and
thus are linked thematically to particular themes or
variations in the anthologies. These novels were not used
because they are not part of the prescribed reading program
for the province of Newfoundland and Labrador.

A unique feature of this program, called _Listening and
How_, comprises two cassette tapes per grade level. Each tape
contains informative and enjoyable content that is supportive
of the themes in the anthologies. The children's listening
comprehension skills, such as listening to follow directions,
are practised using these tapes. Included with each tape is
a printed insert that indicates the appropriate placement of
each _Listening and How_ selection.

The writing element, _Writing and How_ supplements _Language
Growth_, the Department of Education's curriculum guide for
language in the elementary grades. The whole writing process
from brainstorming, developing rough drafts, to polishing,
editing and proofreading is studied and practised. _Writing_

<u>and How</u> presents information to help children develop grammatical and stylistic control over language by introducing them to a variety of writing forms such as dialogue, fables, friendly letters, reports, poems and journals. The children keep all their pieces of writing in their own writing file which is kept in a file box. The purpose of this file is to provide an overview of all the writing each child does during the year, so that improvement can be noted. Included in the <u>Writing and How</u> text is a "style-manual" handbook for children's reference in checking their writing. This handbook offers brief, practical explanations of the conventions of punctuation and grammar and offers practical writing hints.

Accompanying the student's writing text is a teacher's edition which provides systematic, though flexible, lesson plans. Emphasis is on the pieces of writing that will be taken through the whole writing process. To meet individual student needs, optional additional writing activities are also suggested for the various selections in each teaching unit.

As with most basal readers, this series has a skillbook (see Appendix B) to accompany each of the anthologies. These skillbooks are not available through the Department of Education but can be purchased directly from Nelson as was done in this case. These books, designed to be used independently by students, are directly related to selections in an anthology. The skillbooks help children use story structure, syntactic structure, word structure and phonics to

get meaning. Each skillbook provides practice in reading, listening and study skills.

A teacher's resource book is provided for each of the grade levels. Those used during the control year were Teacher's Resource Book A and Teacher's Resource Book B. These teaching guides claim to be based on current theory about reading strategies with a four-step lesson plan for each reading selection (or group of related selections) that provides detailed prereading and post-reading activities. The sequential steps are focusing, experiencing, reflecting and extending.

Focusing is a prereading activity and here the reader establishes a context and purpose for reading as well as a plan for reading. There are teaching suggestions for this step which include such procedures as brainstorming, role-playing, and semantic webbing.

Experiencing involves the reader seeking to fulfil the purpose and testing the plan by reading the selection. In most cases the plan suggests that the teacher let the children read the selection on their own but on occasion the teacher will involve the children in listening or guided reading.

During reflecting the reader consolidates the facts and feelings the material brings, integrates these with prereading thought, and refines and revises his/her understanding of the selection. Teaching suggestions include retelling,

interviewing, experimental writing, cloze activities, and semantic webbing.

Extending engages the reader in activities that would not have been possible prior to reading. The teaching suggestions present a variety of activities that engage children in comprehending informational reading material and presenting it in new ways.

Another feature of the resource book is a readability section which gives an anecdotal assessment of the reading difficulty for each selection in the anthologies. The assessment is based on concept load and the syntactic and semantic content of the material. The selections are described as easy, easy to average, average to challenging, and challenging.

Finally, there is an evaluation resource book for each level of the series. _Evaluation Resource Book A_ and _Evaluation Resource Book B_ are intended to help teachers monitor children's growth in all aspects of the language arts. Evaluation materials of five kinds are provided: language development checklists; informal oral reading appraisal; silent reading tasks; responding to writing and evaluating listening.

It has been stated that this program endeavors to integrate all the language arts. To illustrate this the selection "Messages", a poem by John McInnes (introducing the communication theme) in _Ripple Effects_, is used to portray a

typical lesson. First, there are _focusing_ activities which include a discussion about types of messages. The children then _experience_ the poem by first listening to the teacher read it and then reading it independently. The children _reflect_ by sharing orally the images evoked by the poem. The skillbook is then used to involve the children in an inferencing activity about ways messages are sent. The children _extend_ by representing creatively (pictures, collages, words) messages they would like to create. A selection "Message Mosaic" from _Listening and How B_ is used along with another page in their skillbook. The children open their skillbooks, listen to instruction from the teacher, listen to the tape and then write down as many messages as they can remember. The _Reading and How B_ selection Picture Messages also extends this selection for the children. They study a rebus message and focus personal knowledge of the types of messages received through all of the senses. They then compose rebus messages to share with their classmates. _Writing and How B_ involves the children in various writing activities such as writing an opinion poem under a section called Message Mosaic.

The control group used all components of the series except for the novel. Both grades were taught independently, using the prescribed texts for each grade. The time allotments were as follows: a forty minute reading period

every day for reading and three, forty minute periods every
week for writing.

Additional Activities.

The teacher involved the children in a number of
additional language arts activities during the control year;
namely, a daily silent reading period, a daily read aloud by
the teacher, independent reading, and daily journal writing.
These were included because the teacher had been exposed to
psycholinguistic and whole language theory for a number of
years prior to the study and had included these whole language
activities in her language arts curriculum. The writer could
not justify dropping these activities during the control year
because she felt that to do so would be detrimental to the
students.

The daily silent reading time was a fifteen minute period
during which everyone in the classroom read. The children
would complete short book reports on the novels they read
using book report forms that required them to classify the
book according to genre (historical fiction, realistic
fiction, modern fantasy, biographies, traditional literature
and information books). The teacher assisted the children
with this until they felt comfortable doing it on their own.
These book report forms, which came from a book titled Reading
Rousers: 114 Ways to Reading Fun, were kept in a file by each
student (see Appendix C).

The teacher also promoted independent reading by enrolling the children in the public library in a neighbouring community. She then transported the books back and forth to the library and the children exchanged books within the classroom. Because the school was small, there was no library, but each classroom had its own collection of books. Whenever the children had a few spare minutes, they were encouraged to read from a self-selected book. The teacher also fostered the idea of coming into the school to read before classes commenced for the morning and afternoon sessions. The students were exposed to several children's magazines (see Appendix E) and various teacher-made materials such as booklets that were made by taking apart old basal reading series. These booklets, which required the students to answer a few questions on the story, were taken home to help promote reading practice.

For the daily twenty minute read aloud period, the teacher chose books that were representative of the various genres of children's literature (see Appendix D). Books such as _Tales of a Fourth Grade Nothing_ by Judy Blume which is realistic fiction, _Louis Braille_ by Margaret Davidson which is a biography, _Island of the Blue Dolphins_ by Scott O'Dell which is historical fiction, and _Charlotte's Web_ by E.B. White which is modern fantasy are examples of the type of material read to the group.

The daily journal writing was a 15 minute period set aside at the same time each day. The children were encouraged to write about any topic of their choosing, but were aware they were not permitted to write anything malicious about another person or to use profane language. The teacher read the journals every two days (grade 4 one day, grade 5 the next) and wrote comments frequently.

Spelling Program.

The spelling program for the control group, Spelling in Language Arts published by Nelson (see Appendix B) is designed to relate spelling instruction to the various aspects of the language arts. It contains 30 weekly word lists of approximately 20 words with a review week every six weeks (36 lists in all). Each of the 36 units is divided into three major sections: Word Wise which gives practice activities in the meaning and connotative power of both the list words and related vocabulary; Word Watch which directs students' attention to the phono-visual and structural aspects of the list words and related words; and Word Wizard which develops the language usage skills of the students.

Every week the teacher first pretested the students so they would know what words they had to learn. Then the teacher would select activities from Word Wise and Word Wizard for the children to complete. The students would learn the words, do the activities and write sentences with the list

words to prepare themselves for a weekly spelling test. Because there were only three, thirty minute periods allotted for spelling each week, the students usually completed some of the spelling activities at home. Every six weeks they would have a review week and these test scores were recorded for evaluation purposes.

Assessment.

During the control year the teacher's assessment or evaluation was governed by the guidelines set down by the local school board. Reading was evaluated using periodic teacher-made tests as well as two formal exams, one at midterm in January and a final exam in June. These exams consisted of unseen stories with related vocabulary and comprehension activities. Some of the material in the Evaluation Resource Book A and Evaluation Resource Book B was used, namely, silent reading tasks. The teacher also evaluated the independent silent reading by way of the book report file. This evaluation was used as a check to find out which students were not reading books so that the teacher could assist disinterested students in selecting books they may find appealing.

Writing was assessed using the guidelines in Language Growth which had been used to set up a policy for the local district (see Appendix B). Language Growth suggests that there are two types of writing evaluation, formative and

summative. The formative type, "...serves as a means for the teacher to determine what needs to be taught in class and to individuals within the class. This is evaluation's diagnostic purpose. It is of the highest importance" (p. 59). Formative evaluation was done during the revising and editing stages and was carried out by the teacher during the control year because the writing process was used in *Writing and How*. The teacher-pupil conference was the arena for this type of evaluation.

Language Growth suggests four avenues for summative evaluation. Periodically (four times during 1986-1987) the students went to their writing files and selected a piece of writing they had already published. This piece of writing was then revised and edited again by the student. The purpose of this was to give the student a chance to show how his/her writing had improved since s/he published that particular piece. The teacher evaluated this piece of writing for the second time by asking two questions. How well has the student revised, and have conventions been appropriately used here? The teacher then wrote up an evaluation form and gave it an overall mark for the general quality of meaning and form. The evaluation form was sent home to the parents along with the improved piece of writing. This part of the evaluation was allotted 25 percent of the total writing mark at the end of the year.

The second avenue for the summative evaluation of writing consisted of having the students independently complete a

piece of writing, which meant that they went through the complete writing process on their own. These pieces of writing were forms of writing that the students had already experienced. The students in this study completed four pieces of independent writing, two for midterm and two for finals. This was allotted 50 percent of the final grade.

The third possible avenue for the summative evaluation is the traditional unit test. This form is not recommended in Language Growth and was not used in this study.

The final avenue for the grading of students' writing ability was the students' weekly published writing which was kept in their writing file. Four times during 1986-1987 the teacher looked at each student's file and gave an overall grade. This was worth 25 percent of the final grade.

As was previously stated, spelling was evaluated using weekly spelling tests administered and corrected by the teacher. Along with this there were midterm and final exams. These exams contained a word list plus activities similar to the ones in the spelling text for each weekly word list.

Experimental Group

In September, 1987, the children in the experimental group were introduced to language arts without a basal reading series. This group was exposed to a whole language program (see Appendix C) in which the teacher organized time, materials and resources around themes (see Appendix F). Such

a framework allowed the teacher to present all materials in a meaningful way and to utilize the interests of the children when deciding what materials to use and what activities to pursue in each theme.

A unique feature of this program was that it was presented to both grades together integrating approximately 40 percent of the time in school. Because the students were expected to perform at a level that was appropriate for them, it became a much more individualized program.

Theme Work.

The teacher developed seven themes for exploration during the experimental year. The first six weeks revolved around the theme Books. Here the teacher introduced the children to the various genres of children's literature, famous children's authors, well-known children's books and the actual publishing of a book. In conjunction with the genres, the children were expected to read at least one self-selected short story from each genre and complete related activities. The purpose of these activities was to teach pupils to classify short stories and novels by genre, in preparation for more extensive study of children's literature.

In the writing core of the Book theme, the children wrote a fantasy story and collaboratively authored and published two big books for the primary grades. Daily journal writing was

also introduced to the children at this time using the same procedure outlined for the control group.

The children were also involved in listening and speaking activities throughout this six week theme. For example, the teacher read aloud the modern fantasy book <u>Stuart Little</u> by E.B. White (see Appendix D). The children were asked to predict what would happen from chapter to chapter and recapped daily what happened in the novel the day before. The teacher discussed the characteristics of a modern fantasy novel which then served as a framework for writing a fantasy story.

For two of the themes explored during the experimental year, the teacher used <u>Books Alive</u> by Jean and Ian Malloch (see Appendix C) which is a literature-based program revolving around a number of books that the teacher reads aloud (see Appendix C). According to Malloch and Malloch (1986b):

> As the teacher reads to the students and shares their response to the story, the teacher is modelling the role of a good reader and leading the students into an enjoyment of the story. The read-aloud period is therefore the focus of the program, for unless students have discovered the joy of reading, they will never want to read for themselves. (p. 1)

The first novel (see Appendix D) chosen from the <u>Books Alive</u> program was <u>Owls in the Family</u> by Farley Mowatt. This novel was the focus of the second theme called Peculiar Pets. Various reading, writing, listening and speaking activities revolved around the novel. The children also selected and read another full-length novel related to the theme and then conferenced with the teacher about it. As with the other

themes, the teacher chose a number of short stories from various children's magazines (see Appendix E) relating to the theme for the children to read independently and then used these stories to help the children develop the reading strategies outlined in the theoretical section, namely, predicting, confirming/disconfirming, and integrating. The predicting usually would be done as part of a group discussion about the story prompted by such things as the title and the illustrations. The children would then read independently to confirm or disconfirm their predictions. The teacher would also require the children to complete some written activities which would help them integrate the information from the selection. Such activities would often be in the form of questions modelled on the three levels of questions developed by Pearson and Johnson (1978). The three categories, textually explicit, textually implicit and scripturally implicit, are described by Pearson and Johnson in the following way.

> Textually explicit questions have answers right there on the page... . Textually implicit have answers that are on the page, but the answers are not so obvious. For "scripturally" implicit questions, a reader needs to use his or her script in order to come up with an answer. (p. 157)

These activities were completed on loose leaf paper which the students would file away in a reading file in the same file box that was used for writing files and book report

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*Script here refers to one's experience.

files. Later, the teacher evaluated the reports to determine whether the children understood the story. If there were problems, the teacher would work with the child independently to solve the problem or, if it appeared to be a problem shared by many of the students, the teacher would discuss it with the whole class.

The teacher also involved the children in vocabulary activities which helped them develop strategies for unknown words such as "synonym substitution" (Goodman and Burke, 1980, cited in Newman, 1985d). In this activity the teacher instructed the students to substitute something which made sense for anything they did not know. The emphasis was upon creating meaning from a context. The teacher also did a variation of this by underlining certain words needed to understand a story. By using context the students would have to write down a word or phrase that they felt could be substituted for this word. Then the teacher and students discussed all the possible substitutions and why the students chose them. They decided which were acceptable substitutions and which were not.

Other themes for the year included Christmas Around the World, Whales, Friendship and Love, The Olympics, and Overcoming Fears. The novel <u>The Thunder-Pup</u> by Janet Hickman which was used as the focus for the last theme was chosen from the <u>Books Alive</u> program (see Appendix F). The time allotment for theme reading was at least 40 minutes every day.

Additional Reading Activities.

The experimental year involved themes plus activities such as a fifteen minute reading aloud period daily by the teacher (see Appendix D). The novels to be read aloud were selected because of their literary merit and/or because they suited the background of these children. An example of a book with suitable background would be Treasure of Kelly's Island by Michael McCarthy. Some of the books chosen were classics that the children would not select to read independently because the style of writing was difficult but which the teacher knew they would enjoy listening to. The Borrowers by Mary Norton is an example. Sometimes the theme being explored influenced the choice. Thus, while doing the Love and Friendship theme, the teacher read the novel The Great Gilly Hopkins by Katherine Paterson which portrays a young girl searching for, and finding, love and friendship. Similarly, while doing the Whales theme, the teacher read Amazing Animals of the Sea edited by Ralph Gray.

As in the control year, the teacher also chose novels that were representative of the various genres of children's literature. For the modern fantasy genre, the teacher read Stuart Little by E.B. White and The Borrowers by Mary Norton. For the information book genre, she read Amazing Animals of the Sea, and for the historical fiction genre, Snow Treasure by Marie McSwigan was read. For the realistic fiction genre she read Treasure of Kelly's Island by Michael McCarthy and

The Great Gilly Hopkins. Freedom Train by Dorothy Sterling was representative of the biographical genre and Coyote the Trickster by G. Robinson and D. Hill was of the traditional genre.

The teacher also encouraged independent reading both in school and at home. There was a 20 minute silent reading period set aside at the same time each day. In September the teacher introduced the children to the Three I's reading program (see Appendix C) which promotes individualization, independence, integration and sharing. Contained within are 56 titles that cover all genres of children's literature. Children chose which books they wanted to read and after reading each, conferenced with the teacher. The teacher recorded all the conferences and noted the strengths and weaknesses the children exhibited. For example, the teacher noted whether they could converse easily, whether they could classify their books and whether they could summarize the story. The children then did a book report from Reading Rousers: 114 Ways to Reading Fun. After the teacher looked at the report for formative evaluation purposes, and if necessary, intervened to help children who had difficulties, the students filed them away in a reading report file folder in the file box. The reading file showed the students how many books they had read as well as the genres, which sometimes influenced their next choice. The teacher's conference log file, which contained a record of all books

read by students, indicated to the teacher whose independent
reading was progressing smoothly and who needed help. This
was an ongoing program throughout the entire school year.

Included in each Three I's program were four sets of
seven novels to use with the readers who were having problems
with independent reading. Early in the experimental year,
through conferencing and observation, the teacher identified
six "less confident" readers. The teacher then used one of
the sets of novels, The Secret Life of the Underwear Champ by
Betty Miles, with this group and utilized suggestions for
strategy development from the Three I's Professional Manual.

The teacher read aloud certain parts of the book, but
also used paired reading, individual reading and cassette
tapes. The teacher began each session by reading aloud a
couple of paragraphs which was followed by a discussion. The
children would do any of a variety of suggested activities
such as having a volunteer from the group read a page aloud,
which alternated with having the whole group read a page
silently until the chapter was finished. Sometimes an
accomplished reader from the rest of the class was paired with
someone from the group and they took turns reading aloud a
chapter. The children also took their novels home to reread
a chapter aloud to someone in their family. As a group, the
children listened to the Three I's cassette tapes which
contained selected chapters. Also included in this part of

the program were cloze exercises to accompany segments of the books.

As in the control year, the teacher enrolled the children in the public library in a neighbouring community and brought books from which the children exchanged within the class. Book report ideas from the book Reading Rouser: 114 Ways to Reading Fun were also used with these books and any others they chose to read from the classroom or personal libraries, both of which the teacher tried to build up in a number of ways. The teacher involved the school and community in a Book Fair sponsored by Scholastic to encourage independent reading. The profit from this project was a number of paperback titles for the classroom library. The students in the class were also members of Arrow Book Club (sponsored by Scholastic) from which they ordered books for their personal libraries. It should be pointed out that both of these involvements were part of the control year as well.

To encourage the independent reading of materials other than books, the teacher subscribed to a number of children's magazines such as Cricket, Highlights, World, Children's Digest and Owl (see Appendix E). The information available in these magazines was tied into the themes whenever possible. In addition, each child subscribed to a magazine called Sprint which is published fourteen times during the school year by Scholastic. Each edition of this magazine contains such features as current events, a play, and a writing activity.

The teacher also motivated independent reading by involving the children in various take-home reading activities. Considerable use was made of the booklets produced from outdated readers. On occasion the children also took home information books from a set of science-related books that required them to answer in writing, a number of teacher-made questions designed to help them integrate the information. They also took home theme-related short stories and answered questions that were used to help them predict and integrate.

Writing Program.

For the writing component of the whole language program, the teacher used <u>Language Growth</u> which advocates a communicative approach to writing. According to this guidebook, the communicative approach emphasizes three major categories of writing: expressive, which is the pupil writing for himself for the purpose of clarifying thought; transactional which is used for informing, persuading, and scientifically explaining and describing; and poetic which is writing used as an art form. These categories were developed by using a variety of forms such as letters, narratives, poems, interviews, reports, diaries, and, journals. The children wrote and their writing became their textbooks instead of having prescribed texts as in the control year. Conventions were taught as the need arose during the use of

a particular writing form. Thus, for example, quotation marks were taught as needed in writing dialogue. This would generally be done as a whole class activity. In addition, when the teacher, during conferencing, noticed the need for certain conventions, she would teach them. This was done individually, on a small group basis, or on a whole class basis. The writing forms depended on such things as the theme, the season, or special events. For example, during the Book theme, the children collaboratively wrote and published a big book; during the Christmas theme they wrote an invitation to the Christmas concert; during Education Week the children wrote a dream diary because the theme for Education Week was "Today's Dreams - Tomorrow's Reality". In addition they wrote friendly letters after Education Week to thank the people who were involved in any way with making the week a success. After they wrote their letters, they addressed envelopes and mailed the letters. The time allotment for writing was at least three, forty minute periods every week but this was very flexible. If the writing involved a content subject, then that period would be used for writing.

Spelling Program.

The spelling component of the whole language program was an individualized program developed by the teacher. <u>Teaching Spelling</u> by Ves Thomas (1979) was used to obtain an individualized list for each student. This book contains a

list of 2000 words which an Alberta study determined to be the words most frequently used by Canadians when writing. According to Thomas:

> In an effort to update previous vocabulary results and to make them more relevant to a Canadian setting, an extensive research project was undertaken in Alberta in 1972. ...approximately 25,000 compositions were gathered from a representative sample of thirty-five school jurisdictions in the province of Alberta... . For the final analysis, a total of 1287 individual writing samples were selected for computer analysis. (p. 12)

From these results Thomas concluded that the 100 words most frequently written by Alberta children accounted for 58 percent of all the different words used, which was only a list of 7365 words. The list of 2000 words, listed in descending order of frequency, was based on a composite of results obtained by combining grades one through six as a single group. The grade placement for each word was also included.

Using the grade placement as a guide, the investigator selected part of this list (beginning with the first 100) to pretest the children until they had an individual list of approximately 100 words they could not spell. The teacher called out the words (using the same method as with the Graded Word Spelling Test used as a testing instrument) in groups of fifty. After each 50 words the teacher collected and corrected the lists and recorded the misspellings. When a child had accumulated 100 words, s/he stopped taking the pretest. The students would make a 15 word list each week by selecting a maximum of ten from their individual list and

adding five words that they wanted to learn to spell. Usually they chose words related to the theme being explored at the time. The children worked in pairs during spelling time. The grade fours chose partners on a daily basis whereas the grade fives, being the senior students in the class and able to work better without the teacher, had a partner they worked with for many activities. The teacher paired the grade 5 students for the duration of a theme trying to ensure that they had a different partner each time. The students would ask each other their word lists and then correct each others spellings. They wrote sentences with the words as well. Then, after approximately a week, they tested each other. The teacher corrected these tests and recorded the marks. After noting the words they had wrong, the teacher added words from their individual word lists and then the student added five more to make up fifteen spelling words. The teacher also took into account the fact that one student was a particularly weak speller and ensured that this student's list was shorter but composed in the same way. By mid April some students had exhausted their lists, so, using the same procedure as before, the teacher helped these students build another word list of approximately 30 words which would see them through the rest of the year. The time allotment for spelling was three, thirty minute periods a week.

Activity Centers.

Another component of the whole language program was the provision of activity centers which were made up of a variety of activities. One such center was the reading center. In this center, some activities, such as story starters, were commercially made and some, such as various spelling games on plurals, synonyms and homonyms were teacher-made. The booklets used for take-home practice were also housed there. The Multiple Skills Series published by Lowell and Lynwood Ltd. (see Appendix C) were likewise included. This center was in operation for most of January and February when the children spent more time inside due to inclement weather. The teacher would check the students' work if necessary but much was designed to be self checked.

On occasion there were other centers related to the content areas. For example, the children worked through one unit in the science curriculum using a center approach. It contained all the instructions and materials needed to work through an entire unit independently but asking for help if needed. The teacher set up the grade five unit on magnetism first and this freed her to work with the grade fours for one science unit. Then later she set up a grade four unit on electricity and worked with the grade fives. At the end of each unit, the teacher spent time reviewing the activities with the children.

The library was also considered a center and children were encouraged to use it as much as possible. The blank book report files for use after finishing a book were there. A poetry corner was set up where the teacher displayed poetry relating to the themes. There was also a place to display the students' writing. The children were encouraged to browse through magazines and complete the activities suggested in them. They frequently found an art activity in <u>Highlights</u> that they asked the teacher to use for art period. Through working at the centers the children had the freedom to choose while being immersed in many language arts and content area activities.

Assessment.

Assessment or evaluation was ongoing during the experimental year. The teacher endeavoured to incorporate the components of whole language evaluation as outlined in the theoretical background to the study. The language arts evaluation was only partially determined by school board policy this year since the school board had given the teacher permission to use the whole language approach, including appropriate evaluation procedures, while at the same time not neglecting board policy on evaluation. Much of the evaluation during the experimental year was formative which is done, basically, to help students improve their performance. The summative evaluation was done for reporting purposes.

The teacher's evaluation of reading, which was primarily in the form of anecdotal records, was based on a variety of procedures. First, as previously explained, the teacher evaluated formatively the work done on stories related to the themes which the children kept in their reading files. The teacher had a record book which contained space for each child and she kept the anecdotal records of the children's performances on these activities.

Second, the teacher used individual conferences as a major source of formative evaluation. As previously explained these conferences were conducted as part of the Three I's program. Each novel in this kit has a student resource card, one side of which contains "What Do You Think?" questions to be considered by the children as they read the book (for predicting) and after they have finished (for integrating). According to the Three I's Professional Manual these questions, which prepare the child for the conference, are intended to do the following:

1. capture the child's immediate emotional response to the story;

2. encourage critical thinking about the text;

3. deepen understanding, especially of major themes and concepts; and

4. integrate new meaning into the child's existing background of experience. (p. 13)

The questions of the student's card are also in the Teachers Resource Binder (another component of the Three I's

Program) but the teacher's conference card contains a synopsis of the book and possible answers to the questions. Using these, the teacher conferenced with students and kept anecdotal records of the conferences. When finished a book, the children would do a book report from Reading Rousers 114 Ways to Reading Fun and file it away in their reading report folder after the teacher had evaluated it. The teacher looked at this file periodically to check which students were doing book reports regularly and which were not. The teacher also checked to see if they were reading books from various genres and again attempt to encourage a variety in reading selections.

For reporting students' reading progress to parents, the teacher administered teacher-made tests at mid-term and at the end of the year. Even though this was not characteristic of the whole language approach used by the teacher, she used it for a variety of reasons. First of all, this community was very traditional and expected a report card from the school with percentage grades for the various subjects. The parents were aware that all the other schools in the local school board district gave out report cards. Thus, the teacher, who had to allay many parental fears early in the year because their children were not going to do "readers" and "spellers", felt it was necessary to administer these tests for reporting purposes. Secondly, the grade five students were leaving the school in June to attend a larger school in a neighbouring

community to do grade six (grade five was the highest grade in this school). The teacher gave the grade fives the same reading test as was given to the grade fives in the larger school so that her students could be placed appropriately in the grade six classes (there would be four) using the reading scores as one measure. Thirdly, the teacher was curious to see how the students would perform on a traditional type of exam after being exposed to the whole language approach for a year. The average results indicated that they did as well as the students in the larger school who had been using basal reading program Networks. When the teacher compared the grade five results with their grade four results of the previous year, when they had been exposed to the basal approach, there was very little differences with the majority doing as well as or better than in the previous year.

The writing evaluation for the experimental year was the same as for the control year. The teacher used the formative and summative avenues suggested in Language Growth.

Spelling was formatively evaluated using the children's writing. While conferencing the teacher did such things as show spelling patterns in words. The individualized spelling program was evaluated for reporting purposes using the results of the weekly tests corrected and recorded by the teacher.

CHAPTER IV

FINDINGS

Introduction

The purpose of this chapter is to present the results of the statistical analysis of the data collected over the duration of the study. The investigator used a number of statistical procedures. First, simple descriptive statistics were generated. These included frequencies for the nominal variables of sex, grade and treatment (TREAT) and for the ordinal variables of father's occupation (FOCC), father's education (FED) and mother's education (MED). The ordinal variables were later added together to form a composite for socio-economic status (SES). Condescriptive statistics were also computed for the continuous variables in the study which included reading in the spring (RDGS), writing in the spring (WRITES), spelling in the spring (SPELLS), as well as the cognitive ability variables of the standard age score for verbal ability (QV), for quantitative ability (QQ) and nonverbal ability (QN). The condescriptive procedure produced means, standard deviations, skewness, and kurtosis for the continuous variables and the ordinal variables (FOCC, FED, and MED).

Second, the investigator used one way analyses of variance in order to assess the differences between the two

groups (control and treatment) on the dependent variables
RDGS, WRITES and SPELLS. In an analysis of variance, the
observed variability in the sample is partitioned into two
parts: variability of the observations within the group
(around the group mean) and variability between the group
means themselves.

Third, the investigator wanted to determine the
relationship of the variables to each other. To do this
Pearson product-moment correlations were generated.

Fourth, the investigator used two statistical procedures
to substantiate the use of two composite variables as
controls. Two new variables were created; CA (cognitive
ability) from QV, QQ and QN, and SES (socio-economic status)
from FOCC, FED and MED. Construction of CA called for a
factor analysis whereas SES was an additive composite.
Reliability tests were conducted on both CA and SES.

Finally, multiple regression was computed on the three
outcome variables of RDGS, WRITES and SPELLS. Multiple
regression may be regarded as a stringent test for determining
the effects of the treatment on the outcome variables after
placing statistical controls on selected independent
variables.

Descriptive Statistics

Frequencies and Condescriptives

Frequencies are useful to determine the dispersion of the cases for nominal and ordinal variables such as SEX, GRADE, TREAT, FOCC, FED and MED. For some ordinal variables (FOCC, FED and MED) condescriptive statistics were used. Condescriptive statistics were also useful for describing the independent variables of QV, QQ and QN.

Sex.

In the complete data set there were 39 cases. Eighteen of the cases or 46.2 percent of the total sample were boys. Twenty-one or 53.8 percent of the cases were girls. The dispersion is portrayed graphically in Figure 1.

Grade.

There were two grades represented in this study and both grades were part of the data set each year. In total, there were 20 grade fours (51.3%) and 19 grade fives (48.7%). This dispersion was such that about half of the students were in each grade during each year of the study. This is shown in Figure 2.
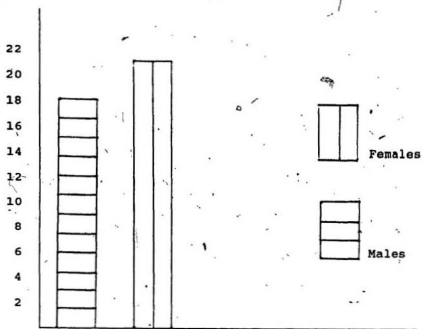
FIGURE 1.   A bar graph representing the number of males and females.
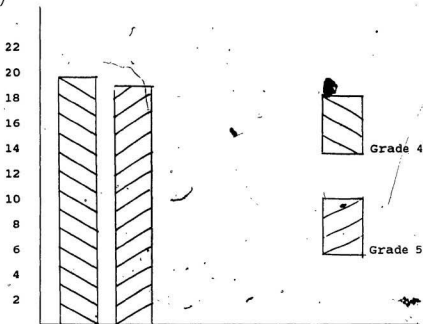
FIGURE 2.   A bar graph representing the number of grade 4 students and the number of grade 5 students.

Treat.

There were two groups that received treatment during the two year study. The first year of the study was the control year during which the control group received basal reader instruction. Figure 3 shows that the control group contained 21 or 53.8 percent of the 39 cases. The second year of the study was the experimental year. The experimental group had 18 or 46.2 percent of the total number of cases. Thus the number of cases was almost evenly distributed between the two groups.

FOCC.

Father's occupation was measured using a scale that had 16 socio-economic categories. Six categories were used to code the father's occupation for this sample. The histogram (Figure 4) depicts that 79.5 percent of the total sample was below the fifth point on the value scale which indicates a severe positive skew. The condescriptive statistics revealed that the mean for father's occupation was 4.461, hence, the aggregate socio-economic status was low. The kurtosis and skewness statistics reported in Table 1 confirm that the distribution of socio-economic status scores departed from the normal distribution.
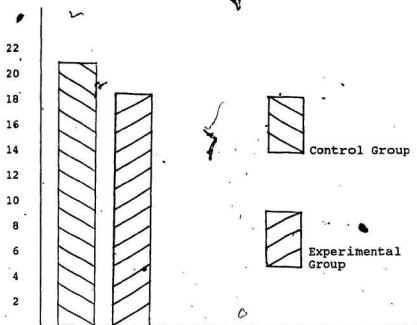
FIGURE 3.   A bar graph representing the number of students in the control group and the number of students in the experimental group.
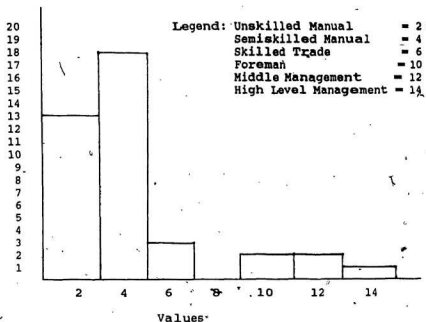
FIGURE 4.   A histogram representing father's occupation.

Table 1

Means, Standard Deviations (S.D.), Kurtosis and Skewness for
the Ordinal Variables of FOCC, FED and MED

Variables	Mean	S.D.	Kurtosis	Skewness
FOCC	4.462	3.059	2.768	1.821
FED	8.513	2.349	1.961	-.800
MED	8.103	2.521	1.970	-.651

FED.

Father's education was coded using nine of the 13 possible values. The histogram (Figure 5) depicts that over half (53.8%) of the total sample had grade eight or less education. This indicates that the aggregate value for father's education was not very high especially since grade eight is often referred to as upper elementary. Table 1 shows that FED is not normally dispersed. The kurtosis is above one indicating a fat or leptokurtic distribution. The scores are modestly negatively skewed.

MED.

Mother's education was coded using nine of the 13 possible labels. The histogram (Figure 6) portrays that over half (59.0%) of the mother's education scores in the sample had grade eight education or less. Table 1 indicates that the sample was not normally dispersed because, again, the kurtosis was over one and there was a modest negative skewness similar to FED.

Other Variables

The three outcome variables, RDGS, WRITES and SPELLS were used to generate means, standard deviations, kurtosis and skewness for both the control group and the experimental group as well as the total data set (Table 2).
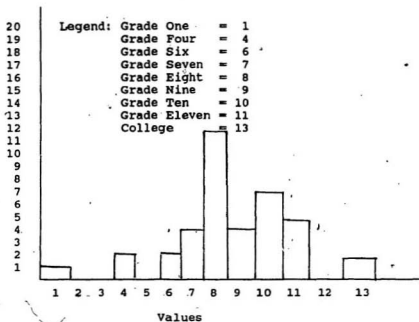
FIGURE 5.   A histogram representing father's education.
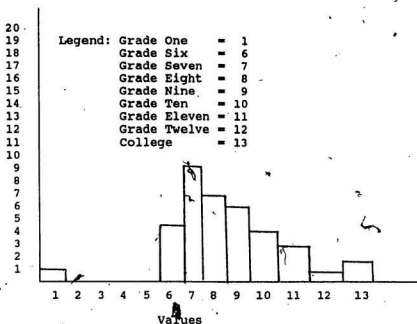
FIGURE 6.   A histogram representing mother's education.

Table 2

**Comparison of Means, Standard Deviations (S.D.), Skewness, Kurtosis,
Maximum (Max.) and Minimum (Min.) for the Continuous Variables**

Variables		Mean	S.D.	Skewness	Kurtosis	Max.	Min.
RDGS	(1)	48.381	11.805	.330	-.751	72	29
	(2)	51.500	11.052	.562	.293	76	33
	(3)	49.821	11.422	.367	-.394	76	29
WRITES	(1)	62.857	16.113	.231	-1.143	89	38
	(2)	71.389	17.517	-.483	-1.083	89	38
	(3)	66.795	17.102	-.059	-1.320	89	38
SPELLS	(1)	45.238	11.000	.676	-.054	70	29
	(2)	45.778	9.717	.214	-.406	65	29
	(3)	45.487	10.295	.479	-.293	70	29
QV	(1)	89.095	12.062	.073	.339	113	62
	(2)	90.944	13.922	-.269	.313	116	61
	(3)	89.949	12.812	-.083	.117	116	61
QQ	(1)	92.952	13.757	-.405	.885	116	58
	(2)	97.167	14.197	-.196	.548	125	65
	(3)	94.897	13.939	-.269	.511	125	58
QN	(1)	90.762	13.946	.353	.194	122	66
	(2)	100.444	12.070	.413	-.768	124	85
	(3)	95.231	13.836	.163	-.221	124	66

NOTE: Control Year   = 1
       Experimental Year = 2
       Total Sample   = 3

A comparison of the means show that for RDGS and SPELLS the means were slightly larger in the experimental year. The means for WRITES showed the largest difference. These scores were expressed as grade equivalencies. The control year mean for WRITES was 62.9 months which, when divided by ten (the number of months in one school year), gave a writing ability level of grade 6 and 2.9 months (grade 6, third month) and for the experimental year it was 71.4 which was grade 7 and 1.4 months. This shows a difference of about eight months which indicates that in writing ability the children at the end of the experimental year were approximately eight months ahead of the children at the end of the control year.

Cognitive Ability

The variables QV, QQ and QN were used as independent variables. (See Table 2). The means of all three variables were slightly higher for the experimental group. The least difference was found between the verbal ability of both groups where the difference was less than two points. Verbal ability would be used for reading, writing and spelling more so than quantitative or non verbal ability. Thus the closeness of these two means indicates that both the control group's and experimental group's verbal ability was about the same. The skewness and kurtosis indicate that the scores of both groups were approximately normally distributed.

Analysis of Variance

The first three hypotheses of this study were tested using analysis of variance. These hypotheses were as follows.

1. The reading comprehension ability of children exposed to a whole language approach will be greater than the reading comprehension ability of children exposed to a basal reader approach, other things equal.

2. The writing ability of children exposed to a whole language approach will be greater than the writing ability of children exposed to a basal reader approach, other things equal.

3. The spelling ability of children exposed to a whole language approach will be greater than the spelling ability of children exposed to a basal reader approach, other things equal.

The analysis of variance for reading by treatment (Table 3) showed that even though the mean for reading in the spring was slightly larger in the experimental year than in the control year (see Table 2) the variance was not significant at the 0.1 level. This level of significance was chosen for this study for a number of reasons. According to Borg and Gall (1983, p. 373) the 0.1 level of significance is a legitimate cut off for exploratory studies such as this one. With small samples, it is difficult to obtain high significance levels. Hypothesis #1 was rejected because the

Table 3

ANOVA Results of Breakdown Analysis of RDGS, WRITES and SPELLS by TREAT

Dependent Variables	Source	SS	D.F.	Square	F.	Sig.	ETA	ETA'
RDGS	1	94.291	1	94.291	.717	.401	.138	.019
	2	4863.452	37	131.445				
WRITES	1	705.510	1	705.510	2.508	.122	.252	.064
	2	10408.849	37	281.320				
SPELLS	1	2.823	1	2.823	.026	.873	.027	.001
	2	4024.921	37	108.782				

NOTE: 1 = between groups, 2 = within groups, SS = sum of squares, D.F. = degrees of freedom

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significance level was not statistically significant but the investigator would like to stress that the relationship was in the hypothesized direction.

One way analysis of variance for writing by treatment showed a significance level of .122. Note, however, that this level was based on a two-tailed test. Where the direction of a relationship is specified as in this instance (writing is responsive to the experimental treatment) a one-tailed test is acceptable. This was estimated from the formula $t = eta$ $(n - 2)$ $(1 - eta^1)$ where n = the number of cases.

$$t = .252 \ (37/1 - .064)$$
$$= .252 \times 39.53$$
$$= 9.961$$

The main advantage of the one-tailed test of significance is that a smaller critical ratio is needed to be statistically significant (Borg and Gall, 1983). The one-tailed estimate of the t-value of 9.961 proved statistically significant at the 0.01 level. Hypothesis #2 was accepted.

One way analysis for spelling by treatment yielded a significance level that was above 0.1. Therefore, hypothesis #3 was rejected.

The CA and SES Composite Variables

It is readily accepted that much more influences literacy than type of curriculum (TREAT). In this study the

investigator examined the relationship between treatment effects and the three outcome variables while controlling for the effects of cognitive ability and socio-economic status.

A decision had to be made regarding the selection of control variables. In the ideal case, fall reading would be used as the control for spring reading, fall writing as the control for spring writing and fall spelling as the control for spring spelling. And, for this reason, scores in these variables were obtained in the fall of each year, as well as in the spring. But it was also decided that the most elegant design would be one in which the three models would be integrated.

In order to integrate the models as was done in the summary of the findings (see Figure 10), and at the same time keep each of the control variables, five independent variables would have been required. Three of these were highly collinear, namely, the fall reading, fall writing, and fall spelling. The use of these three variables could have resulted in sign reversal and inflated standard errors, which in turn would have made the model difficult to interpret. There would have been sampling fluctuation due to the use of five independent variables in a data set with fewer than 40 cases. The most obvious solution was to use a single general control variable. The one most commonly used in educational research is cognitive ability, thus, it was the one selected by the researcher in this study as well.

One of the earliest uses of cognitive ability as a covariate in the educational research literature was by Turner (1964) who wished to demonstrate the responsiveness of social class values to ambition while taking family background, socioeconomic ratings and intelligence simultaneously into account. But because structural equation modeling had not been developed at the time, the solution to Turner's problem had to wait until the publication of the Duncan, Featherman and Duncan (1968) monograph. In that monograph the estimates of the determinants of ambition were present in path form on page 26. The same authors depict on page 104 an extended occupational achievement model in which the extension refers to the addition of intelligence (as a covariate) to the model. The first use of intelligence as a covariate in a structural equation model was in the Blau and Duncan (1967, pp. 326-327) monograph on The American Occupational Structure.

The first structured equation model of academic achievement was a doctoral dissertation by Robert Hauser (1968) who used intelligence in a path model in order to more accurately assess the effects of sociological variables on literacy and numeracy performance. The Hauser thesis was published as a monograph by the American Sociological Association in 1971. In short, the use of cognitive ability as a component of a path model for control purposes has a respectable research history. The variable was used by most of the researchers in estimating path models from the very

beginning of the structural equation modeling tradition in education.

Cognitive Ability

The testing instrument CCAT (Canadian Cognitive Abilities Test) used to determine cognitive ability is comprised of three subtests which were used to create three variables; namely, verbal ability (QV), quantitative ability (QQ), and nonverbal ability (QN). In the interests of parsimony these variables were used as indicators in the construction of a linear composite variable called cognitive ability (CA). After generating a correlation matrix (Table 4) for these variables, principal components analysis (Table 5) was conducted.

The factor loadings reported in Table 5 indicate the responsiveness of the factor to its indicators (QV, QQ and QN). The usual rule of thumb is to regard loadings greater than .3 as acceptable. Since the loadings in this analysis ranges from .748 to .942 there can be no doubt about their significance. The factor score coefficients were used as weights in the construction of the CA linear composite. The indicator variables were standardized (given zero means and standard deviations equal to unity) before applying the weights as follows:

$$CA = .350 \ ((QV - 89.949)/12.812) +$$
$$.441 \ ((QQ - 94.897)/13.939) +$$
$$.388 \ ((QN - 95.230)/13.836)$$

Table 4

Zero Order Correlations, Significance Levels, Means and Standard Deviations for the Variables QV, QQ and QN

Variables	QV	QQ	QN	Means	S.D.	N
QV	1.000	.000	.020	89.949	12.812	39
QQ	.612	1.000	.000	94.897	13.939	39
QN	.330	.739	1.000	95.231	13.836	39

NOTE: S.D. = Standard deviation   N = Number of cases
        Correlation coefficients are reported below the
        diagonal and significance levels are reported
        above the diagonal. If $p < .10$ the relationship
        is statistically significant.

Table 5

Principal Component Analysis of Cognitive Ability

Variables	Factor Loadings	Eigenvalue	Factor Score Coefficients
QV	.748	2.136	.350
QQ	.942	.678	.441
QN	.830	.186	.338

KEY: QV = Standard Age Score for Verbal Ability

QQ = Standard Age Score for Quantitative Ability

QN = Standard Age Score for Nonverbal Ability.

NOTE: Alpha reliability = .795

The unweighted alpha reliability of CA was .795. Therefore, it was decided that the new variable (CA) had acceptable psychometric properties. Because this estimate of the reliability is an unweighted one, alpha is a lower-bound or conservative estimate.

Socio-economic Status

For this study socio-economic status was measured using the three variables labelled FOCC, FED and MED. The investigator wanted to reduce these three variables to one composite variable to be labelled SES. This was done by adding the values of each together; that is, each was given unit weight. To determine whether this variable could be used a reliability analysis was done on this scale. The reliability coefficient (alpha reliability) for the new SES variable was 0.478. This is unacceptably low, hence, this composite was dropped. An attempt was made to conduct a different composite by adding FED and MED to create a parent's education (PARED) composite. Recent research in Newfoundland (Whitt, 1988) shows that father's occupation sometimes will make the SES variable unreliable if the sample comes from a rural community as was the case in this study. Without FOCC, the created variable could be more reliable. A reliability test was run on the new variable but this variable also had a low alpha reliability (0.473).

Both SES and PARED were unreliable for a number of reasons. One can look back to Figures 4, 5 and 6 and Table 1 and see evidence that there was very little variance in the values given to these variables (FOCC, FED and MED). The fact that 79.5 percent of the father's occupations were below the fifth point on the scale and that only six out of the 16 occupations were represented suggests that rural SES is closer to being a constant than a variable. Another factor was that over half (53.8%) of the total sample had grade eight or less for the FED variable. The kurtosis was quite high (see Table 1) and, therefore, the variance for FED was not normally distributed. The kurtosis for MED was similar because over half (59%) of the mothers had grade eight or less.

Multiple Regression

Pearson Product-Moment Correlations

The zero-order correlations (Table 6) between all the variables used in subsequent analysis are presented first. These statistics include both correlations and significance levels. The correlations between TREAT and the outcome variables of RDGS, WRITES and SPELLS are examined initially because they can be used to confirm the ANOVA results which, in fact, they do. Hypotheses one and three were rejected as before, and hypothesis two was accepted.

Table 6

Zero Order Correlations, Significance Levels, Means and Standard Deviations (S.D.) for the Variables in the Study

Variables	SEX	SES	TREAT	CA	QV	QQ	QH	RDGS	SPELLS	WRITES	MEAN	S.D.
SEX	1.000	.062	.144	.157	.413	.143	.117	.066	.197	.077	.538	.505
SES	-.250	1.000	.290	.000	.002	.000	.012	.192	.052	.433	16.615	3.944
TREAT	-.174	.091	1.000	.079	.330	.177	.014	.201	.436	.061	1.461	.505
CA	-.166	-.560	-.230	1.000	.000	.000	.000	.052	.010	.181	.000	1
QV	-.036	.449	.073	.788	1.000	.000	.020	.099	.000	.018	89.949	12.812
QQ	-.175	.594	.153	.942	.612	1.000	.000	.113	.000	.386	94.897	13.939
QH	-.195	.363	.353	.830	.330	.739	1.000	.241	.051	.430	95.231	13.836
RDGS	.245	.143	.138	.265	.378	.198	.116	1.000	.000	.000	49.820	11.422
SPELLS	.140	.265	.026	.372	.753	.266	-.024	.625	1.000	.000	45.482	10.295
WRITES	.232	-.281	.252	.150	.336	.048	.029	.521	.614	1.000	66.795	17.102

NOTE: Correlation coefficients are reported below the diagonal; significance levels for each relationship are reported above the diagonal. p values < 0.10 are statistically significant.

The findings presented in Table 6 can also be used to test several of the additional hypotheses formulated in Chapter 3. Hypotheses four and six were accepted. These read as follows.

Hypothesis 4: The reading comprehension ability of children is responsive to cognitive ability.

Hypothesis 6: The spelling ability of children is responsive to cognitive ability.

Hypothesis five was rejected and, because the SES variable was unreliable, hypotheses seven through nine could not be tested. These hypotheses were as follows.

Hypothesis 5: The writing ability of children is responsive to cognitive ability.

Hypothesis 7: The reading comprehension ability of children is responsive to socio-economic status.

Hypothesis 8: The writing ability of children is responsive to socio-economic status.

Hypothesis 9: The spelling ability of children is responsive to socio-economic status.

Early in the analysis of the data it was discovered by chance that the variable SEX had influenced reading and writing ability. The Pearson product-moment correlations (in

Table 6) showed a .06 significance level for the sex/reading relationship. For this study a p value less than 0.1 is statistically significant. A .077 level of significance was found for sex and writing which is also statistically significant at the 0.1 level.

Given these findings it was decided to add three hypotheses to the study as follows.

1. The reading comprehension ability of the children in the sample will be responsive to sex differences.

2. The writing ability of the children in the sample will be responsive to sex differences.

3. The spelling ability of the children in the sample will be responsive to sex differences.

The investigator then accepted or rejected the new hypotheses based on the inclusion of SEX as an exogenous variable. The relationship between reading ability and sex was statistically significant (.066) at the 0.1 level. The first new hypothesis was accepted. This meant that girls were better readers than boys in this sample. The relationship between sex and writing ability was statistically significant (.077) at the 0.1 level. Hypothesis two was accepted. This indicated that girls were significantly better writers than boys in this sample. The investigator felt that this was so partly because of cultural expectations. Boys in this rural community were expected to be involved with outdoor activities after school such as fishing, playing ball, going in the woods

and bike riding instead of being involved in more passive activities such as reading or writing." In the rural culture, literary activities are not for boys. The relationship between spelling and sex was not statistically significant (.197) at the 0.1 level. Therefore, new hypothesis number three was rejected.

Regression Analysis

To test more stringently all the hypotheses in this study the investigator used regression techniques which examined the effects of the treatment variable on reading, writing and spelling after the placement of statistical controls on the independent variables of cognitive ability and sex. Borg and Gall (1983) define multiple regression "as a multivariate technique for determining the correlation between a criterion variable and some combination of two or more predictor variables" (p. 596). In this study there were three criterion variables (RDGS, WRITES and SPELLS) and, therefore, there were three multiple regression equations generated.

The first equation dealt with the effects of TREAT on RDGS while controlling for SEX and CA. (This equation also gave the effects of CA on RDGS while controlling for TREAT and SEX and the effects of SEX on RDGS while controlling for CA and TREAT). Table 7 provides the estimates for this equation and Figure 7 gives a graphic representation. The earlier rejection of hypothesis number one concerning the relationship

between treatment and reading was supported. The significance level of this relationship when CA and SEX were controlled was .433 and unacceptably high.

The relationship between CA and RDGS was a fairly strong one. Table 7 shows that the t-value of 1.806 is significant at the .079 level. The hypothesis of a positive and significant relationship between cognitive ability reading was reconfirmed.

The third relationship in this multiple regression equation was between SEX and RDGS. The relationship was a strong one and was significant at the 0.1 level. Thus, this reconfirmed the hypothesis stating a positive and significant relationship between sex and reading.

The second equation was used to assess the effects of treatment on SPELLS while controlling statistically for CA and SEX. (This equation also gave the effects of CA on SPELLS while controlling for TREAT and SEX, and the effects of SEX on SPELLS while controlling for CA and TREAT.)

The rejection of the hypothesis that specified the relationship between TREAT and SPELLS was substantiated by the statistics in Table 8 and by the coefficients shown in Figure 8. The relationship between CA and SPELLS stated in this model was a strong one with a T score of 2.607 and a Beta weight of .413. The significance level (.013) was also significant. This reconfirmed the earlier acceptance of the hypothesis of a positive and significant relationship between

Table 7

Regression Coefficients, Standard Errors, Standardized
Regression Coefficients, T-Values, and Significance Levels
for the RDGS Path Model

Independent Variables	B	Dependent Variable RDGS SE(B)	Beta	t-value	p
CA	3.291	1.822	.288	1.806	.079
SEX	-7.128	3.565	.315	1.999	.053
TREAT	2.864	3.613	.126	.793	.433

Mult R = .413
R² = .171

NOTE: B = regression coefficient, SE(B) = standard
errors, Beta = standardized partial regression
coefficients, and p = significance levels

FIGURE 7. Path diagram of the whole language model of reading.

Table 8

**Regression Coefficients, Standard Errors, Standardized
Regression Coefficients, T-Values, and Significance Levels
for the SPELLS Path Model**

Independent Variables		Dependent Variable			
	B	SPELLS SE(B)	Beta	t-value	p
CA	4.254	1.632	.413	2.607	.013
SEX	4.143	3.194	.203	1.297	.203
TREAT	.675	3.236	.033	..209	.836

Mult R = .426
R² = .181

NOTE: B = regression coefficient, SE(B) = standard
        errors, Beta = standardized partial regression
        coefficients, and p = significance levels
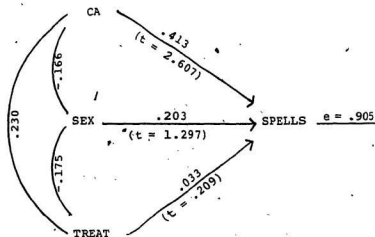
FIGURE 8. Path diagram of the whole language model of spelling.

CA and SPELLS. The third relationship in this model between SEX and SPELLS was not statistically significant which reconfirmed the rejection of a relationship between those two variables that was hypothesized earlier.

The third multiple regression equation was designed to determine the effects of treatment on **WRITES** while statistically controlling the variables CA and SEX. (This equation also gave the effects of CA on WRITES while controlling for SEX and TREAT and the effects of SEX on WRITES while controlling for CA and TREAT.)

The relationship between TREAT and WRITES was fairly strong (Table 9). The t-value of 1.699 gave a p value of .098 which was statistically significant at the 0.1 level. This confirmed again the results of ANOVA and the correlation analysis with regard to the responsiveness of writing skills to a whole language approach. The relationship between CA and WRITES was not statistically significant (.397) at the 0.1 level of acceptance. The third relationship in this model (see Figure 9) was between SEX and WRITES. This relationship was a fairly strong one which proved significant at the p less than 0.1 level. This confirmed the acceptance of this hypothesis.

Table 9

Regression Coefficients, Standard Errors, Standardized Regression Coefficients, T-Values, and Significance Levels for the WRITES Path Model

Independent Variables	B	Dependent Variable WRITES SE(B)	Beta	t-value	p
CA	2.353	2.746	.157	.857	.397
SEX	10.261	5.374	.303	1.909	.064
TREAT	9.251	5.446	.273	1.699	.098

Mult R = .399
    R^2 = .160

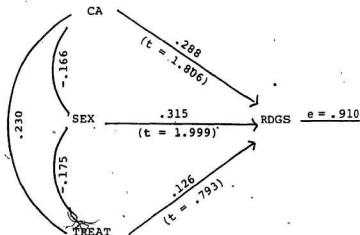NOTE: B = regression coefficients, SE(B) = standard errors, Beta = standardized partial regression coefficients, t-values = T-Values, and p = significance levels
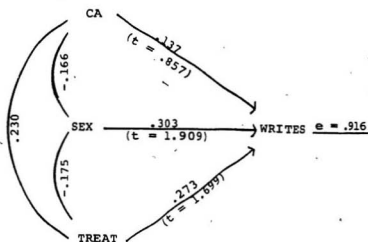
FIGURE 9. Path diagram of the whole language model of writing.

Summary of Findings

The investigator used different levels of statistics from simple descriptive statistics to the more complex multiple regression in order to analyze the data collected during this study and in doing so accepted or rejected the stated hypotheses. The nine relationships specified in this study were all tested by the regression analysis and are presented in Table 10 as an integrated model. Figure 10 displays the relationships graphically. The investigator found that the following relationships were statistically significant.

1. The writing ability of children exposed to a whole language approach was greater than the writing ability of children exposed to a basal reader approach. This was shown by a significance level of .098 which was acceptable at the 0.1 level.

2. The spelling ability of children was responsive to cognitive ability. The t-value of 2.607 gave a significance level of .013 which was statistically significant at the 0.1 level.

3. The reading comprehension ability of children was responsive to cognitive ability. The relationship was statistically significant (.079) at the 0.1 level.

Table 10

Regression Coefficients, Standard Errors, Standardized Regression Coefficients, T-values and Significance Levels for the Integrated Model of CA, SEX, TREAT on RODS, SPELLS and WRITES

Independent Variables	RODS					SPELLS					WRITES				
	B	S(B)	Beta	t-value	p	SE(B)	Beta	B	t-value	p	Beta	B	SE(B)	t-value	p
CA	3.291	1.822	.288	1.806	.079	1.632	.413	4.254	2.607	.013	.137	2.353	2.746	.857	.397
SEX	7.328	3.565	.315	1.999	.053	3.194	.203	4.143	1.297	.203	.203	10.261	5.374	1.909	.064
TREAT	2.864	3.613	.126	.793	.433	3.236	.033	.675	.209	.836	.273	9.251	5.446	1.699	.098
	Mult R = .413					Mult R = .426					Mult R = .399				
	R² = .171					R² = .181					R² = .160				

NOTE: B = regression coefficient, SE(B) = standard errors, Beta = standardized partial regression coefficient, and p = significance levels.

FIGURE 10.   Path diagram for the integrated model of CA,
SEX, and TREAT on RDGS, SPELLS and WRITES.

4. The reading comprehension ability of children was responsive to sex differences. The t-value of 1.999 gave a significance level of .053 which was statistically significant.

5. The writing ability of children was responsive to sex differences. This relationship was statistically significant (.064) at the 0.1 level.

The following hypothesized relationships were in the right direction but not statistically significant (see Table 2).

1. The reading comprehension of children exposed to a whole language approach was at least as good as the reading comprehension of children exposed to a basal reader approach.

2. The spelling ability of children exposed to a whole language approach was at least as good as the spelling ability of children exposed to a basal reader approach.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND FURTHER RESEARCH

This chapter has a threefold purpose. First, it will summarize the study and at the same time draw some conclusions. Second, it will suggest some theoretical and practical implications that arise as a result of the findings. Third, it will suggest extensions to the present research.

Summary and Conclusions

This study, which was conducted over a two year period in a rural community, was designed to compare and contrast two literacy acquisition approaches. The two approaches were: (a) the traditional skills approach which uses as its vehicle of instruction a basal reading series; and (b) the whole language approach which uses children's literature and other "real" reading materials such as magazines, cook books and phone books for instructional purposes. These two perspectives are the focus of considerable attention by educators and researchers. Chapter 2 gave the background to the development and widespread use of basal reading series in North America as well as the reasons why basal readers alone are not adequate in teaching children to be literate. Chapter 2 also presented the philosophy underlying whole language

approach and suggested why and how it could be implemented in any classroom, including a multigraded classroom.

An experimental study was conducted to measure which of these two approaches would have more influence on children's reading, writing and spelling ability. The basal reader approach was used with the control group during the first year of the study and the whole language approach with the experimental group during the second year. Because it is widely known and accepted that other factors (besides type of curriculum) influence literacy, the investigator controlled for two other variables, cognitive ability and socio-economic status. One of these, socio-economic status, was dropped due to unreliability and another, sex, was added at that time. Cognitive ability and sex were then used as statistical controls in order to measure more accurately, through regression analysis, the effects of treatment.

Reading acquisition did not show a significant statistical difference in the experimental year over the control year although it was slightly better according to the mean scores. Two limitations of the study, however, must be mentioned here. First, the Networks basal series was used during the control year. The publisher of the series maintains that it follows the principles of whole language teaching. This had most likely affected the results of the study. Second, the writer stated in Chapter 1 that she had been exposed to the whole language philosophy for a number of

years prior to this study and had incorporated many aspects of whole language (such as reading aloud daily to the children and setting aside a time each day for independent reading) into her curriculum. She could not justify abandoning these activities during the first year of the study. Therefore, it may be that another reason why the children did almost as well in reading during the first year of the study as in the second year was that there were some aspects of whole language teaching included in the control year as well as in the experimental year. The writer believes, though, that the children in the second year enjoyed the independent reading component more because it was extended and because the teacher conferenced with each child every time a book was read from the Three I's Kit. Many children read twenty or more books.

The variable sex had a significant effect on reading ability. Specifically, girls achieved more in reading than boys, when controlling for curriculum and cognitive ability. Cognitive ability also had a significant effect on reading, when controlling for curriculum and sex.

As a result of this investigation, it seems that whole language instruction in reading can be implemented with or without basal reader programs. Whole language teachers can use series such as Networks as one resource out of many in order to meet the needs and interests of all the learners in the classroom.

The spelling component of the two year study yielded interesting and thought provoking results. During the first year of the study, the students used the traditional speller and completed all the weekly activities, which take up a great deal of time. During the second year the children participated in the individualized program outlined in Chapter 3. The teacher initiated the program and then the children worked in pairs to carry it out. They found that learning spelling words was fun since they chose words to learn that meant something to them. The results of the study show that spelling during the second year was at least as good as during the first year. The question arises then, "Why subject children to all the busywork that the traditional speller encompasses when they learn to spell just as effectively by using a modified program?". Skeptics of whole language, however, always ask, "What about the children's spelling skills if they don't have a traditional spelling program?". The findings of this study led the investigator to conclude that the spelling ability of children exposed to whole language is at least as good as the spelling ability of children exposed to a more traditional approach.

The statistics from the writing component of the two year study produced results that warrant careful consideration. The writing ability of children exposed to a whole language approach was significantly better than the writing ability of children exposed to a basal reader approach. This finding was

upheld even when controlling for two powerful predictors that could have confounded the results; namely, sex differences and cognitive ability. During the second year of the study, the writing component was very different from the writing component of the first year. Specifically, it was not a prescribed program. Children wrote meaningful forms of writing that evolved naturally from their reading, the season of the year, or special events. They conducted real interviews, wrote invitations to parents, and wrote stories about things that were important to them. This was in contrast to the first year when writing was a prescribed program with a specified text for each of the two grades involved.

While this finding cannot be generalized to other classrooms and other schools in the Province the investigator concluded that the process approach to writing, as advocated in <u>Language Growth</u> (Government of Newfoundland, 1982) was certainly applicable to her own classroom. The finding confirmed the position of the Department of Education stated in <u>Language Growth</u>. The finding was also confirmed in an experimental study by Mrs. Maxine Mercer (nd) of a group of preschool children in St. John's. Mrs. Mercer, Director of Early Childhood Services at St. John's YM-YWCA supervises twenty-six day care workers and has successfully introduced whole language processes in the early childhood program at 'the Y'. Her research findings are reported in a thesis to

be submitted to the School of Graduate Studies, Memorial University of Newfoundland, in 1989. Further support for this finding is to be found in the Ryall (1986) Master's thesis, although the subjects in the Ryall research were special education children; hence, the study may be less applicable to present situation than the Mercer study.

The Writing and How component of Networks is probably best used as a resource rather than as the writing program for the students. In the rural community where the research was conducted, the girls' writing ability was better than that of the boys when the type of curriculum and cognitive ability were controlled statistically. This suggests that teachers need to make a conscious effort to involve the boys in writing and impress upon them that writing is just as important for boys as for girls. They just write about different things. The teacher could introduce the children to some young male authors (for example Gordon Korman) in an effort to interest the boys in developing writing ability.

It seems, then, that an integrated language arts program (whole language) is an effective way to help children achieve literacy in an atmosphere in which learning is perceived by both the teacher and the students as exciting. The ultimate goal of this province's language arts program is summarized in the Government of Nova Scotia document entitled Language Arts in the Elementary School (1986).

> It is the aim of the language arts program at all
> levels to develop the four aspects of language
> (speaking, listening, writing and reading) so that
> children may learn to communicate effectively with
> both peers and adults... Learning in these areas
> is dependent upon effective communication, while at
> the same time, learning to communicate is
> facilitated when the subjects are dealing with
> interesting topics and information from other areas
> of the curriculum. Always the focus is on meaning.
> (p. 2)

The writer submits that this goal can be achieved with a whole

language program.

Although no statistics were generated to specifically

test the effects of using a whole language program in a

multigraded classroom, some comments would seem to be in

order. In the multigraded classroom in which this study was

conducted, there were two grades (grade four and grade five).

During the second year of the study the teacher integrated the

language arts strands within and across the two grades. This

was not difficult to do when using whole language approach

since much of the work was student-controlled. The results

of this study show that an integrated language arts program

can be presented successfully in such a classroom. The

teacher is available to the students for all the language arts

time, not half as is the case when specified texts for each

grade level are used. It should be pointed out as well that,

even when using a basal series such as <u>Networks</u> in a

multigraded classroom, a teacher need not restrict the

language arts curriculum by using a specified anthology or

reader for each grade level. Rather, it is possible to be

selective and use stories from any anthology with both grades. The point is that the texts or readers need only be one resource of many in a whole language program.

Theoretical Implications

The results of this study support the notion that the whole language approach is based on sound theory. The psycholinguistic theory needs to be understood by teachers if they are to successfully implement the whole language approach to literacy. In other words, if teachers are going to shift their emphasis in teaching the language arts, they need to understand the reading/writing process. They need to be aware of the cueing systems readers use interrelatedly as they read; that is, the semantic, syntactic and grapho-phonic systems. They not only need to know, but to feel comfortable with this theory in order to be able to teach language arts from a whole language perspective.

Many teachers are more comfortable using basal readers, and even those willing to try a whole language approach are presented with a basal reading series which is part of the curriculum set down by the Department of Education and, which in many schools, they are compelled to use. As a result of the findings of this study, it seems that whole language theory can be implemented with or without a basal reading series. The important thing to remember is that the basal

reading series is probably best used as one resource for a literacy program, rather than as the program itself. Goodman and Goodman (1982) suggest much the same procedure.

> Teachers and schools wanting to shift towards a whole language comprehension centered approach may find the most practical means of doing so is to modify their use of the available basal readers. This can be accomplished except in those cases where the basal is too tightly structured and skill based. (p. 131)

The Networks program is not a tightly structured, skill based series. It is an attempt by a publisher to provide materials that are based on the current psycholinguistic theory. As a result, it is possible to follow the suggestions outlined by Goodman and Goodman (1982) in order to modify a basal reading program.

1. The teacher can modify the use of the manual by deciding what suggested activities reflect the whole language mode of thought and which do not.

2. The basals become one resource among many in the classroom. There are several commercial programs such as Scholastic's Three I's and Doubleday's Books Alive (both used by the researcher during this study) that can be used as well. In addition, various types of print need to be available in the classroom (useful or functional material as well as storybooks).

3. The teacher and the students should be selective about what stories are chosen to be read from the basals. Not all the stories need to be done by all the students at the same time.

4. Support materials, such as skillbooks and workbooks, need to be screened in order to choose only those activities that are meaningful.

Whole language theory emphasizes the need for/ children to develop reading strategies. Children need to be able to predict, confirm or disconfirm and to integrate information. When they disconfirm, they need to have strategies to use in order to help them carry on with their reading. This means that teachers need to be aware of the reading strategies and how to foster their development.

The theoretical implications for writing are obvious from this study. The curriculum guide Language Growth (1982) epitomizes the process approach to writing and should be used by the teacher as the focus of the writing program. Language Growth outlines the theory behind the process approach which needs to be understood by teachers if they are to feel comfortable with advocating the whole language philosophy of writing.

In a whole language classroom children must be immersed in oral and written language because this serves as models for their own writing. They must have a choice in what they write. According to Cochrane et al. (1984) the teacher's role

in the writing process is to set up an environment where the following things occur.

1. The students are involved in good reading materials that will act as models for the students' own writing.

2. The students see adults important to them using writing to carry out their daily needs.

3. Students get positive feedback on their writing.

4. Students develop a sense of trust in the other people in their writing community (classroom) and thus will take risks. They feel comfortable enough to expose their thoughts to the other students and the teacher in their class.

5. The teacher acts as a collaborator with the students in their class.

6. There is joy in the process of writing.

This study also investigated the effects of whole language on spelling ability and the findings have important theoretical implications for the spelling program in our schools. The study implies that spelling does not need to be taught using a traditional spelling program because children learn to spell just as well without it. Whole language proponents feel that non-standard or functional spelling must be accepted and this study indicates that doing so is not detrimental to the children's spelling ability. Whole language teachers believe that spelling is developmental; that

is, there are stages that children go through in acquiring spelling skill but they do so at different rates. The integrated spelling program that whole language philosophy requires puts heavy responsibility on the teacher to take advantage of every opportunity to help students discover how words are spelled, to teach at the point of immediate need, and to discover meaning and structure in words whenever possible.

The type of curriculum was the main focus during this study. For the control year the curriculum was governed by the <u>Networks</u> program. During the experimental year the investigator used themes as the vehicle to organize an integrated language arts program. According to the Curriculum Development Teaching Guide No. 86, published by Nova Scotia's Department of Education (1986) entitled <u>Language Arts in the Elementary School</u>:

> In a thematic approach, the children use language to explore a topic and through the process learn about language. They engage in a variety of exercises to develop and refine concepts related to the topic. Through these experiences, they gain a broader background knowledge. (p. 15)

The extent to which a theme is explored will depend on the children's interest and availability of resources.

The use of themes is an effective and efficient way to organize the learning experiences across subject areas. Doake (1987) suggests that thematic studies can serve a useful role in the intermediate grades, where the students have achieved a higher level of independence in their reading and writing,

especially with regards to content area subjects. Themes provide a natural way of integrating the curriculum and provide for a more economical use of time. Opportunities for students to work collaboratively and independently can lead students and teachers to make use of a wide range of resources both inside and outside the classroom.

Assessment is another area that needs to be seriously considered from a whole language perspective. Whole language teachers are constantly evaluating. The teacher needs to be conscious of the importance of evaluation because this is where they discover a child's strengths and weaknesses. Evaluation should be more formative than summative since a teacher evaluates in order to be able to intervene when the child needs assistance or guidance. The focus of this type of evaluation is the individual. <u>Language Arts in the Elementary School</u> (1986) states:

> One of the most important uses of evaluation is to determine which experiences were useful in promoting student growth. New learning can only happen when it can be linked to the prior knowledge and experiences of the student or what the student already knows. Evaluation should provide information on the growth of knowledge and the ability to use that knowledge intelligently in a variety of situations. (p. 31)

Practical Implications

The main focus of this study was to examine the effects of the basal reading and whole language approaches on reading,

writing and spelling. Because of the findings, the study has many practical implications for the elementary teachers in this province.

During the experimental year the language arts periods were combined so that reading, writing and spelling could be integrated. The writing projects stemmed from the themes, the reading material or special events and seasons. Whenever possible content areas such as science or social studies were integrated into the themes.

The language arts program set down by the Department of Education is the <u>Networks</u> program. This study suggests that <u>Networks</u> can be a part of a whole language approach to reading. The <u>Reading and How</u> books from <u>Networks</u> contain some very good samples of functional reading material. This could be used whenever the need arises for the type of information they contain. <u>Reading and How</u> attempts to help children develop reading strategies.

Two daily reading practices used during both years of this study are desirable ingredients of any whole language approach. First, daily independent reading (where children choose their own books) is valuable. To provide a good selection several book sources should be available, one being the public library. Most public libraries are quite willing to lend class sets of books which can circulate in the classroom and be returned every two weeks for renewal. Book clubs like Scholastic are a viable way of obtaining

inexpensive paperbacks for the classroom. Book Fairs can be sponsored by the school in order to promote book ownership. In addition, children should be encouraged to bring their own books to exchange in the classroom. The stories that the children write can also be put in the class library. A certain time should be set aside each day for independent silent reading. The teacher can encourage the students to read by also reading during silent reading time. The joy a teacher experiences during reading is infectious, especially if s/he discusses the books with the students. Through discussions, the teacher can also keep abreast of the types of books the children are reading and can recommend books they may enjoy.

The second daily practice involves reading aloud to the students. This is a good way to begin and/or end a school day. Reading aloud is an excellent opportunity for the teacher to introduce well known authors such as Betsy Byars, Beverly Cleary, E.B. White, Jean Little and Gordon Korman. The books chosen can be books that are at the interest level of the children but may not be at their reading level. The Borrowers by Mary Norton read by the teacher during the experimental year is such a book. The teacher can introduce children to all the genres of children's literature through the daily read aloud times. One such genre that children seem to enjoy listening to but may not choose on their own is historical fiction. Children will become interested if the

teacher introduces them to it. Snow Treasure by Marie
McSwigan is an example of such historical fiction. This is
a good time for the teacher to model the reading process and
use reading strategies with the children. For example, the
children can predict what will happen during the next chapter.
This is also a time for the teacher to reach out and capture
the interest of the reluctant readers.

The practical implications for the writing component are
obvious. The whole language approach to writing was shown to
be significantly better than the basal reader approach,
therefore, the teacher should incorporate the whole language
principles of writing into the writing program. This means
using the curriculum guide, Language Growth. The Writing and
How books can be used as one resource, but children need to
have control or choice over what they write. The steps in
Language Growth (outlined in Chapter 2) were used during the
experimental year and were helpful in assisting children to
become better writers. Reading and writing are closely
related in a whole language classroom. A daily activity that
could be part of a whole language classroom is free writing
by everyone in the classroom, including the teacher. In this
way the teacher can model the writing process for the
students. Free writing is usually done in the form of
journals. The teacher reads the journals but should not grade
them. Instead a response in writing can be made. From the
first day of school, children in a whole language oriented

classroom are encouraged to write. They are encouraged to write captions for bulletin boards, to write notes and letters, and to write stories and books. If students become writers as they become readers, they will see the link between reading and writing.

The findings of this study imply that children do not need to be tied to a traditional spelling program which dictates the words the children learn and which then requires the children to spend a large amount of time doing practice exercises. Spelling can be more informal like the individualized program used during the experimental year. The importance of spelling is not neglected when using the whole language approach. The children learn to realize that accurate spelling is part of the revising and editing stages. When one is writing thoughts down, the meaning is the most important part of writing, not spelling.

The use of themes is a practical way to organize the curriculum when using a whole language approach. The <u>Networks</u> program is structured around themes and the teacher could use some of these to develop themes that integrate as many subject areas as possible. The use of themes puts heavy responsibility on the teacher because the resources needed for a topic must be available for the students when they require them or they must know where to obtain the resources themselves. The teacher needs to be willing to explore every avenue possible to acquire the resources needed for the

themes. For example, during one theme, a dog owner visited the classroom so the children could conduct an interview. The seasons of the year and special events in a school year can be used to complement or supplement a theme. During the experimental year a theme on the Olympics was done. The focus of the theme came from the resource kit supplied by the Government in Alberta.

Assessment is one area of concern when the whole language approach is being discussed. With the skills approach evaluation is objective. The children either pass or fail the test they are given at the end of a reader. With the whole language approach, the evaluation is more subjective. There are many practical suggestions for teachers to use when evaluating students who are in a whole language oriented classroom. Language Growth (1982) suggests that teachers keep a record book in which each child's strengths and weaknesses are noted. This can indicate how the student is progressing. The language file kept by the student is a good avenue for both formative and summative evaluation. The summative evaluation avenues suggested in Language Growth (outlined in Chapter 3) are easy to follow. The sort of record book suggested for writing can also be used for reading and spelling. The use of audio cassettes would be a good way to keep a record of a child's reading. Logs of books read and scrapbooks which contain samples of a child's work can also be used. The teacher can keep a conference log for each child

and note the child's strengths and weaknesses during the conference. The Evaluation Resource Books which are part of the Networks program contain many practical ways of evaluating a student's reading, writing, listening and speaking. The important point is that the emphasis should be on formative evaluation because this is how a teacher discovers when to intervene.

This study was carried out in a multigraded classroom, a fact which has implications for primary and elementary teachers in Newfoundland and Labrador. Information presented in Chapter 1 indicated that multigraded schools may become more prevalent in many rural areas as a result of the current decline in enrolment, which is predicted to continue for a number of years. A multigraded classroom (with two grades as was the case in this study) that uses a prescribed text for each grade cuts the pupil-teacher contact time per grade to fifty percent or less. A program like Networks with so many components is difficult to use in such a setting. Thus, during the experimental year, the writer integrated the language arts program for the two grades in her classroom. Much of the whole language program is student-centered, therefore, it is easy to integrate both grades when children are doing a lot of individualized activities such as silent reading or writing. For approximately forty percent of the school day during the experimental year, the teacher and students were operating in a non-graded classroom, wherein

students worked at their own levels. They formed groups out of interest or need independent of grade levels. During writing projects the grade fives would peer edit with grade fours on occasion. The classroom was a center of learning that was student-controlled. The study showed that the children's literacy acquisition did not suffer due to this sort of exposure. Therefore, using the whole language approach to provide an integrated language arts program in a multigraded classroom appears to be a practical idea.

Suggestions for Further Research

Three of the five following suggestions for further research are attempts to overcome the limitations of the present study. The first suggestion is related to the data gathering limitation, namely, that the sample size was restricted to the number of students in a small rural school over a two year period. This type of natural experiment could be used in a larger school with at least two classes participating in each treatment group which would make the findings more generalizable. In relation to sample size Borg and Gall (1983) suggest that there should be at least 15 cases for each outcome variable in a study using multiple regression analysis if the investigator is to obtain significant findings. This estimate could be used in determining sample size for a similar study.

The second suggestion relates to measurement. Three important characteristics of a whole language program are reading aloud daily by the teacher, daily independent reading by the teacher and students, and daily writing by the students and teacher. The teacher/investigator had been supplementing the basal reading program with these activities for three years prior to the study and could not abandon them for the first year of the study for fear it might be detrimental to the literacy development of her students. The investigator is confident that this influenced the results during the first year of the study as well as the second. Thus, the investigator suggests that a similar study be carried out by an independent investigator who would involve two teachers, one with a theoretical background in whole language and one without (or two for each).

A third suggestion involves another limitation of measurement. The investigator did not measure the affective outcomes of instruction. After conducting the study it was believed that measuring attitudes, values, and appreciations towards reading, writing and spelling before each group received their treatment and after could have been a valuable part of this study. There were definite signs, from the children involved in the experimental year, of more positive attitudes, values and appreciations towards reading, writing and spelling than were held by the control year students.

The fourth suggestion is to design a longitudinal study in which repeated measures on a set of individuals are obtained over a period of time for the variables used in this study. For example, measures at the beginning and conclusion of a grade could be taken and then at regular intervals in subsequent grades thus permitting a repeated measures multivariate design.

The fifth suggestion is really a number of suggestions relating to the new whole language program being introduced in this province in grade one classes in September 1988. This program should be closely monitored because many of the grade one teachers may not have the psycholinguistic background needed to implement a program from a whole language perspective.

The effectiveness of this primary program on reading ability could also be measured. Many school boards in this province measure reading ability in the spring of each school year. These statistics could be used in conjunction with statistics that will be gathered in the coming year/years to look at the effects of curriculum on literacy acquisition. Longitudinal studies could also be set up to use with these first primary students to be exposed to the new Networks program in order to monitor their progress through the primary grades in regards to literacy acquisition.

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APPENDIX A

APPENDIX A

TESTING INSTRUMENTS USED DURING THE TWO YEAR STUDY

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APPENDIX B

APPENDIX B

TEXTBOOKS AND GUIDEBOOKS USED DURING THE CONTROL YEAR

Government of Newfoundland and Labrador. (1982). _Language growth: A teaching guide for writing instruction in the elementary school._ St. John's: Division of Instruction.

Hughes, M., Connock, M.I., & Wilson, R.J. (1986). _Evaluation resource book A._ Scarborough: Nelson Canada.

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Hughes, M. & McInnes, J. (1983). _Reading and how A._ Scarborough: Nelson Canada.

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Kuska, A., Webster, E.J.D., The School Sisters of Notre Dame, & Quildon, L. (1976). _Spelling in language arts 4._ Don Mills, Ontario: Thomas Nelson & Sons (Canada).

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APPENDIX C

APPENDIX C

WHOLE LANGUAGE MATERIALS USED DURING THE EXPERIMENTAL YEAR

Barrett, F.L., Holdaway, D., Lynch, P., & Peetom, A. (1984). _The three I's kit_ (grade 4 and grade 5). Richmond Hill: Scholastic-TAB.

Bartch, M.R., & Mallett, J.J. (1980). _Reading rousers: 114 ways to reading fun_. Santa Monica, CA: Goodyear Publishing.*

Binder, D. (Ed.). (1987). _Come together: The Olympics and You_. Calgary, Alberta: XV Olympic Winter Games Organizing Committee.

Boning, R.A. (1979. _Multiple skills series_. Baldwin, N.Y.: Lowell & Lynwood Ltd.

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The Whale Research Group, Memorial University. (1984). _Getting along: Fish, whales, and fisherman_. St. John's, Newfoundland: Breakwater Books.

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*This book was used during the control year as well.

APPENDIX D

APPENDIX D

LIST OF BOOKS USED FOR THE READ ALOUD COMPONENT OF THE TWO YEAR STUDY

Control Year

Babbitt, N. (1975). _Tuck everlasting_. New York: Farrar, Straus & Giroux.

Blume, J. (1972). _Tales of a fourth grade nothing_. New York: Dell.

Brown, M. (1954). _Cinderella or the little glass slipper_. New York: Charles Scribner's Sons.

Davidson, M. (1971). _Louis Braille_. Toronto: Scholastic.

O'Dell, S. (1960). _Island of the blue dolphins_. New York: Dell.

Paterson, K. (1977). _Bridge to Terabithia_. New York: Avon.

Peck, R.N. (1974). _Soup_. New York: Dell.

Robinson, B. (1972). _The best Christmas pageant ever_. New York: Avon.

Speare, E.G. (1983). _Sign of the beaver_. Boston: Houghton Mifflin.

White, E.B. (1952). _Charlotte's web_. New York: Harper & Row.

Experimental Year

Gray, R. (Ed.). (1981). _Amazing animals of the sea_. Washington, DC: The National Geographic Society.

Hickman, J. (1981). _The thunder-pup_. New York: Macmillan.

McCarthy, M.J. (1983). _The treasure of Kelly's Island_. St. John's: Harry Cuff.

McSwigan, M. (1942). _Snow treasure_. New York: Scholastic.

Miller, L.G. (1972). _Ten tales of Christmas_. Toronto: Scholastic.

Mowatt, F. (1961). *Owls in the family*. Toronto: McClelland & Stewart.

Norton, M. (1952). *The borrowers*. New York: Harcourt Brace Jovanovich.

Paterson, K. (1978). *The great Gilly Hopkins*. New York: Avon.

Robinson, G. & Hill, D. (1976). *Coyote the trickster*. New York: Crane Russak.

Sterling, D. (1954). *Freedom train*. Toronto: Scholastic.

White, E.B. (1945). *Stuart Little*. New York: Harper & Row.

APPENDIX E

APPENDIX E

MAGAZINES USED DURING THE CONTROL YEAR AND EXPERIMENTAL YEAR

Cricket, the Magazine for Children (ISSN 0090-6034) is published monthly by Carus Corporation 315 Fifth Street, Peru, Illinois 61354.

Highlights for Children (ISSN 0018-165X), incorporating Children's Activities, is published monthly, except bi-monthly July - August (index in December issue). Parent and Child Resource Center, Inc., is the authorized sales agency.

Owl: The Discovery Magazine for Children (ISSN 0382-6627) is published monthly except for July and August. Owl is published by The Young Naturalist Foundation.

National Geographic World (ISSN 0361-5499) is published monthly by the National Geographic Society, Washington, DC 20036.

MAGAZINES USED DURING THE EXPERIMENTAL YEAR ONLY

Children's Digest (ISSN 0272-7145) is published monthly, except bi-monthly February/March, April/May, June/July and August/September, by Children's Better Health Institute, Benjamin Franklin Literary and Medical Society, Inc. at 1100 Waterway Blvd., P.O. Box 567, Indianapolis, IN 46206.

3-2-1 Contact (ISSN 0195 4105) is a publication of the Children's Television Workshop and is published ten times during the year, monthly except for February and August.

Scholastic Sprint (ISSN 0163-3589 in Canada, 2-C No. 9279) is published 14 times during the school year--monthly September, December, February, May, bi-weekly October, November, January, March and April, with the issues of November 6 and November 20 published as a double issue. It is published by Scholastic Inc. 730 Broadway, New York, NY 10003-9538.

APPENDIX F

APPENDIX F

THEME "OVERCOMING FEARS"

This theme was chosen from the program Books Alive. The focus of the theme was the novel, The Thunder Pup, by Janet Hickman which the teacher read aloud. There were multiple copies of the novel available to the children to enable them to complete various activities which the teacher selected from Books Alive. The activities integrated reading, writing, talking, listening, and, on occasion, science, drama and art. In addition, the teacher chose short stories from various magazines (see Appendix E) which the children read independently after pre-reading discussion. They then completed related activities on these short stories which were designed to develop the students' reading strategies. There were also available a large number of novels related to the theme for the children to read independently and then to conference on with the teacher.

It took approximately seven weeks to do this theme. The amount of time allotted for each day's activities was governed by the time scheduled for reading and writing but sometimes other subject time was also incorporated into the theme. Reading related to the theme was done every day for forty minutes. Writing was done for three, forty minute periods every week. Reading and writing were integrated on the three days that writing was scheduled. The teacher also allotted a daily fifteen minute journal writing period and a twenty minute read-aloud period (apart from The Thunder-Pup). During this theme the teacher read Freedom Train by P. Sterling (1954) which is a biography of Harriet Tubman who was a famous figure in the freeing of slaves in the United States during the time of the underground railway. The teacher believed this book epitomized the theme "Overcoming Fears".

Synopsis of The Thunder-Pup

This realistic fiction novel is set in the 1950's in a small rural community. It's characters are Linnie McKay and her family, Arnold Anderson her friend, and Darla Gayle Champion who is a house guest at Linnie's home.

Linnie is waiting for her tenth birthday when she hopes to receive her "wish". Everyone in her family is whispering about something and she hopes it's the dog she really wants. In the meantime Arnold and Linnie are hiding two stray puppies

from the dog catcher. Darla doesn't like dogs and acts rather nastily towards the two puppies.

Linnie is afraid of thunderstorms and this fear makes her behave childishly at a school program. Darla, who happens to be a good dancer, saves the show but this doesn't do much for her and Linnie's relationship.

As Linnie's birthday nears, the surprise turns out to be quite a different one than Linnie had hoped for. It takes another thunderstorm to clear the air completely.

Overall Objective

The teacher and students engaged in reading, writing, listening and speaking activities that revolved around and evolved from the book The Thunder-Pup by Janet Hickman. This book was especially suited to springtime because of the references to thunderstorms. The novel demonstrated to the children that it is normal to have fears but that these fears can be overcome. The students also read short stories and one full length novel involving the theme. Since Mother's Day fell within the time frame of the theme, the students did activities related to this as well.

Reading Objectives

1. The students will recognize the different genres of literature when exposed to the short stories in this theme.

2. The students will be involved in predicting, confirming/disconfirming and integrating activities with the short stories.

3. The students will work through vocabulary activities within the context of the stories to develop strategies for dealing with unknown words.

4. The students will read to find information about thunder and lightning, and other natural phenomena.

5. The students will use the novel The Thunder-Pup to identify differences in how two characters, Linnie and Darla, deal with fear.

6. The students will choose and read a full length novel related to the theme. Some of the novels available are from the Three I's Kit.

Writing Objectives

1. The students will work through the various stages in the writing process.

2. In order to encourage the children to share their fears, they will write a story about a time when they were afraid. This will follow a discussion that shows students that most people have fears.

3. After the teacher reads Chapter 1, the students will explore the idea that most people have wishes. These wishes, which are important to the owner for a variety of reasons, may come true if that person is determined to make the wish come true. The students then write their thoughts about their wish. This piece of writing will be taken through the writing process.

4. The students will practise the format of a letter by writing a letter to their mother for Mother's Day.

5. The students will make a class list of characters in the story (after Chapter 3) and tell what each character is like. This list, which will be expanded on throughout the story, will enable the students to discuss the different personalities of the characters in the story and the importance of each.

6. To help students realize that fears can be overcome, they will write a story about a time they worried about something they had to do and how it turned out. Objective #1 will be carried through here.

7. After Chapter 7 the students will find all the action words referring to the puppies. This will demonstrate how puppies behave.

8. After the teacher reads Chapter 12 the students will discuss how certain words to create sounds. In groups, they will find and write as many words as they can from Chapter 12 which demonstrate this.

9. The students will learn the format for report writing and then write a report on thunder and lightning.

10. To enable the students to conduct an interview, they will collaborate to prepare the questions they will ask.

11. The students will take notes during an interview which they will use to produce a class report.

12. After the novel is finished, the students will practise letter writing by pretending to be Linnie writing a letter to Darla.

13. To study Linnie's character and how she overcomes her fears, the students will complete an activity that shows how Linnie changed throughout the novel.

14. The students will continue their daily journal writing.

15. The students will continue their book reporting.

16. The children complete blackline master 7-7 to help demonstrate their comprehension of this novel.

17. To evaluate how much general information the children gleaned from being exposed to the book The Thunder-Pup, the teacher will administer the general information quiz (blackline master 7-1) as a pretest and post-test.

Listening and Speaking Objectives

1. The teacher will read aloud the novel The Thunder-Pup by Janet Hickman and involve the children in predicting, confirming/disconfirming and integrating strategies.

2. To introduce the theme, the teacher will present There's a Nightmare in My Closet by Mercer Mayers. This will be the first step by the teacher to help the children realize that many times what we fear can be overcome.

3. To involve the children in drama, specifically miming, the students will work together to mime incidents that might cause fear. Each pair performs for the class and the other students guess what is causing the fear.

4. The students will use the novel to find out and discuss how the members of the family feel about storms in order to demonstrate that people can have different feelings about the same thing.

5. Through an interview format, the children will learn characteristics of pets and how to care for them.

6. The class will listen to and discuss music that helps create suspense.

7. The students will realize that different intonations for words or phrases can give different messages.

8. To enable the students to experience Linnie's emotions when she unwrapped her presents (Chapter 19), the teacher will have a student unwrap three presents that are the same as ones Linnie received for her birthday.

9. The students will share one of their stories by reading it aloud to the class.

10. To determine how well a student understood the book related to the theme that s/he read independently, the teacher-student conference will be used.

11. The children will inform the class about the books they read independently by giving a book talk.

12. The teacher will read aloud for fifteen minutes at the end of each day (_Freedom Train_) and involve the students in predicting, confirming/disconfirming and integrating strategies.

Other Objectives

1. The students will illustrate lightning using a crayon resist technique.

2. The students will demonstrate their love for their mothers/guardians by participating in an art activity called "Bouquet Card" (Highlights, May, 1988).

3. The students will work in pairs to conduct two weather experiments in order to understand where clouds come from and what happens to puddles of water on the ground.

4. To demonstrate how art can be used to illustrate the meanings of certain words, the students will construct "word pictures".

5. To extend the enjoyment the students feel after Arnold gives Darla the chocolate covered dog biscuits he made and to involve the students in a cooking activity, the students will make some "dog biscuits" by dipping bite-sized shredded wheat in melted chocolate and allowing it to cool.

6. Each of the students will illustrate with crayons a different chapter in the book in order to help them discover the purpose of illustrations in a book.

7. To make students more aware of the senses of sight and touch, they will be involved in using the sense of touch instead of sight to identify certain food items.

Daily Schedule and Time Allotments

The following is a day by day account of the activities to which the children were exposed in order to fulfill the objectives previously outlined. The page numbers given are from <u>Books Alive: Teacher's Guide 4</u>. The blackline masters are from <u>Blackline Masters Books Alive 4</u>. The times given are only guidelines.

Day 1

The theme was introduced on page 176 of <u>Books Alive</u>. The teacher introduced mime to the children by miming an incident where a person might show fear. Then the teacher read aloud <u>There's a Nightmare in My Closet</u> by Mercer Mayer to show students, humourously, how what we fear is sometimes not real. The students then did the **Bringing the Story to Life** on page 177 where they mimed incidents that might cause fear. They also completed the **In-depth Look** on page 177. Here, the students examined the illustrations in <u>There's a Nightmare in My Closet</u> and discussed how the illustrator made us feel that the boy had nothing to fear.

Blackline master 7-1 entitled General Information Quiz was completed. The students were ensured that they were not expected to know all the answers. They were told they would repeat the quiz after the novel had been read. The teacher stored this away, unmarked, to make comparisons when the quiz was repeated.

The novels related to the theme were also introduced. The children chose one to read independently. They were informed that they would conference with the teacher when they finished their novels, write book reports from <u>Reading Rousers: 114 Ways to Reading Fun</u> and do a book talk.

Time - 80 minutes.

Day 2

The group read the poem Thunderstorm by M.C. Thomas, then discussed how the poet felt about thunderstorms and how the illustrations helped us to infer this. The class then discussed different feelings associated with thunderstorms as well as their own feelings. The poem Fear was read to show Shel Silverstein's feelings about fear.

After discussing fears and the fact that most people have fears, the writing activity on page 177 was completed as free writing and thus was not carried through the whole writing process. This activity involved the children writing about a time when they were afraid.

Art was integrated by illustrating thunder and lightning via a crayon resist activity. After drawing a picture of a storm, the children used crayons to colour their picture and to draw lightning flashes in the sky. They then used blue paint to paint the sky and this dramatically illustrated the flashes of lightning which resisted the blue paint.

Time - 120 minutes.

Day 3

Before the teacher started to read the novel, pre-reading activities were completed (page 178). The title of the book was discussed and the students predicted what they thought the book would be about. The teacher read About the Author (page 171) and asked if they thought their predictions about the story still fitted. The teacher then read aloud Chapter 1/Linnie's Wish and did the For Discussion section on page 178. The class discussed Miss Crane's comment "Clock watchers would never get anywhere in life", and the paragraph beginning "Arnold Anderson", Miss Crane pounced ... . They also discussed what was meant by Linnie pretending to be invisible.

Writing involved the activity on page 179 where the students were asked to think about what they would have written if they were given the topic My Wish. After a few minutes to come to a silent decision, they were asked to think why it was important to them, why it wasn't a reality and what were the possibilities of the wish coming true. This writing project was to be taken through the writing process so they now began their rough draft by writing down their thoughts.

Science for this day involved the students in research on thunder and lightning (page 179). They wrote what they knew about thunder and lightning and listed the questions they would like to have answered. They then collaboratively tried to find the answers from books in the library.

Time - 120 minutes.

Day 4

The chapters read aloud on day 4 were Chapter 2/One-One
Thousand, Two-One Thousand and Chapter 3/Darla. The pre-
reading activity was a discussion about the title of Chapter
2. Both chapters were then read aloud and For Discussion on
page 178 was done. This involved discussing Linnie's "sudden
unwelcome feeling" and what the students thought Darla would
be like. The students also did the writing activity included
in this section which required them to list, on chart paper,
the characters who had appeared so far in the story. Then,
the class was divided into small groups and discussed with one
another what they knew about each character. As each group
reported to the class, the teacher made a composite list.
This chart was kept in a prominent place and added to
throughout the theme.

The In-depth Look on page 179 was also completed. This
activity required the students (in groups) to use the text to
find out how members of the family felt about storms. This
showed the students how different people can have different
feelings about the same thing.

The children also continued the writing activity started
on day 3. The teacher began conferencing with the students.

Time - 80 minutes.

Day 5

The students read the first of the related short stories
that they would do throughout the theme (see end of Appendix
for a list of the short stories). These short stories were
representative of various genres. This short story, Eagle
Woman's Gift (like the rest to be done for this theme) had
related activities which were designed to develop the
children's reading strategies. After a discussion the
children completed the activities independently. The teacher
evaluated these activities before the students filed them in
their reading files.

Time - 40 minutes.

Day 6

Chapter 4/Harry and Bess was read aloud. For pre-reading the teacher re-read the last paragraph of Chapter 3. The students were told that in this paragraph the author gave us a hint about what was to follow. They were asked to suggest what it was. The For Discussion section on page 180 involved a discussion of Linnie's thoughts on the way home. The questions used to generate the discussion were: "What do you think Linnie was asking herself?"; "How would you have felt?"; and "How easy is it to put something important out of your mind?".

The writing project My Wish (page 179) was now at the revising and editing stages. Most of the students were getting ready to publish their story.

Science period was also integrated with the theme. Many of the children needed time to complete the research on thunder and lightning from day 3.

Time - 120 minutes.

Day 7

Mother's Day was approaching so the teacher involved the children in activities related to this special occasion. The children read the story, Mother's Day and the Woman Who Started It at home on day 6. This was an information story that provided the children with background on the origin of Mother's Day. After a discussion, the children did the related activities. Again the teacher evaluated these before the students filed them in their reading folders.

Time - 40 minutes.

Day 8

The children read the short story Mom Runs Away which was related to the theme as well as to Mother's Day. This required the students to do related activities similar to the ones previously explained. The students completed these activities at home.

For writing, the children wrote a letter to their mother, or guardian, telling why they felt Mother's Day was important. They were encouraged to incorporate some of the information they had gathered from reading the story on day 7. In their

letter they included a promise of one thing they would do every day for their mother.

The children also did a Mother's Day art activity called Bouquet Card by Beatrice Backrach from May, 1988 Highlights. This activity required the children to create a three dimensional card.

Time - 120 minutes.

Day 9

The read aloud portion for day 9 was Chapter 5/The Plan and Chapter 6/The Trouble with Sunday. Before Chapter 5 was read, the title was discussed and the children suggested some ideas as to what the chapter would be about. This chapter was discussed using the For Discussion section on page 180 which suggested the questions "What do you think of the plan?" and "Will it work? Why? Why not?". They also added new information about the characters to the chart. Then Chapter 6 was read aloud and discussed using the questions "Why did Linnie find Sunday long?" and "Why did Linnie hope Darla's parents would soon be settled?" which were suggested in the For Discussion section.

The Bringing the Story to Life activity on page 181 was also completed. The children listened to music that helped to create suspense, then mimed actions that created a feeling of suspense. Lastly, using single words or phrases, the teacher had the class repeat them with different intonations to give various messages - statement, question, suspense.

The class also participated in the In-depth Look activity on page 181. Using the chapter Puppy Business, the students found all the action words referring to the puppies. The teacher ensured that the students knew what kinds of words to look for by giving them a few examples of such words before they began the activity.

The students published a Wish book by putting all their stories together to make a class book which completed the writing project.

Time - 80 minutes.

Day 10

Chapter 7/Puppy Business and Chapter 8/Hide and Seek were the read aloud portion for day 10. The pre-reading activity for Chapter 7 involved reading the first sentence "On Monday morning Arnold was late for school ... ." and the students were asked if they knew what Linnie might be thinking. The For Discussion section included the questions "Why didn't Linnie want Darla to come to school?", "What do Linnie and Arnold know about caring for dogs?", and "Do you think they will be able to keep their secret?". Chapter 8 was then read aloud and the way in which the author was building suspense was discussed.

Time - 40 minutes.

Day 11

The read aloud portion for day 11 was Chapter 9/Amidst the Storm They Sang ... . Pre-reading activities included the students discussing their feelings when they know something unpleasant is going to happen. The incident when Arnold was late for school was referred to. The teacher posed the question, "Does reality seem as bad as predicted?" to initiate a discussion on fears and the fact that what is frightening for some will not be frightening for others. They also discussed what Linnie was afraid of.

The writing activity on page 181 set the stage for this writing project. The discussion on worrying about the future was referred to and the students were asked to recall all the things they thought about before the event and how it ended. They formed small groups so that they could share their stories before they wrote about them. This would be the first draft for a story about worrying.

Science was also integrated with the theme on day 11. A center was set up where students worked in pairs to do weather experiments (blackline masters 7-3 and 7-4). Their recorded results were kept in their reading files. This activity was continued for a while so that only a few students needed to work at the centre each day.

Time - 120 minutes.

Day 12

The students independently read the short story The Night the Fears Came and did the related activities after a discussion. They completed this at home.

Time - 40 minutes.

Day 13

Chapter 10/Grandpop's Discovery was read aloud following a discussion of the title of the Chapter. The questions in the **For Discussion** section included, "What did you learn about Grandpop in this Chapter?", "Was his impression of Arnold correct?", and "What does this sentence mean: Darla reigned over the supper table beaming".

The **In-depth Look** activity on page 185 was done. The students were told that Janet Hickman used words in Chapter 12 whose sounds gave their meanings, for example, shump wump. The students used the text to find as many of these words as possible.

The children continued the writing project started on day 11. They continued working on their rough drafts. The teacher began conferencing.

Time - 80 minutes.

Day 14

The read aloud portion for day 14 was Chapter 11/Biscuits and Chapter 12/Ghost Story. The pre-reading activity for Chapter 11 was the **Bringing the Story to Life** on page 185. Different foods were placed in separate containers; peas, dog biscuits, etc. The students were blindfolded and had to try to name the contents by touch. After the chapter was read the **For Discussion** section was completed. The students were asked if they thought Linnie would get a dog for her birthday. The discussion that Linnie overheard was re-read and the students were asked why Linnie thought she was getting a dog. Then Chapter 12 was read and the **For Discussion** section was done. Here the students discussed why they thought the author used the words "guilty hope" and what they thought of Arnold's plan to make the chocolate-covered dog biscuits.

Writing for day 14 involved the students continuing the activity from page 181. The children were into the revising and editing stages now.

Time - 80 minutes.

Day 15

The read aloud chapters for day 15 were Chapter 13/The Day of the Dogcatcher and Chapter 14/A Present for Darla. The pre-reading activity for Chapter 13 involved the students formulating a good argument for keeping the puppies. The title of Chapter 13 was discussed. The teacher wrote Arnold's message on the chalkboard and the students found the mistakes. The **For Discussion** section included the questions, "This was a bad day for Linnie. Why?", and "What did we learn about Aunt Em in this Chapter?". Chapter 14 was then read aloud up to and including the paragraph beginning "Later when it was bedtime... ." The "Drama" activity on page 187 was done. Here, the students were asked what Linnie should do about the dog biscuits. The students were divided into groups to dramatize their solution and each group presented their dramatization to the class. The teacher finished reading the Chapter and the **For Discussion** section was done which involved discussing the questions, "Why was Darla crying?", "How do you think Linnie should have responded?", and "What do you think will happen when Darla eats the chocolates?". Writing for the day involved finishing the writing activity from page 181.

Time - 80 minutes.

Day 16

The read aloud portion for day 16 was Chapter 15/Surprise which was read after the students discussed what they thought the surprise would be. The **For Discussion** section included the following questions.

1. Why was Linnie so against the new house?

2. How did the author help us understand how much she hated it?

3. How was Grandpop feeling about the family moving?

On day 16 the students did the **In-depth Look** activity on page 187. By referring to the text, the students identified the differences between Linnie and Darla. Students worked in groups and a group did not accept a student's answer unless s/he could prove it from the book.

Time - 80 minutes.

Day 17

The short story The White Angel was read by the students. This story was chosen to complement the book Freedom Train which the teacher was also reading aloud. The students completed the related activities and, after the teacher evaluated them, they were filed away in the students' reading folders.

Time - 40 minutes.

Day 18

The read aloud for day 18, Chapter 16/Welcome Home, Harry and Chapter 17/A Dog in the House, were read after discussing why Linnie didn't want to move and whether or not her parents understood. The students were alerted to the fact that in this read aloud Linnie overheard her parents talking. The For Discussion section involved discussing why Linnie should not have expected Harry to remain quiet; what else was found out about Darla; and why Aunt Em was so upset about the family moving.

The In-depth Look activity on page 189 was also completed. The students were informed that several words in the text created their own sound effects; for example, scuffle, crunched and thud. Students suggested other words they felt were sound effect words.

The writing project for day 18 stemmed from Bringing the Story to Life on page 183 which suggested the teacher invite a dog owner to the classroom for the students to interview. Before this activity was done the teacher did the following.

1. The students discussed what they could ask a dog owner during an interview.

2. They categorized the questions under the headings, type of dog and care of dogs. The children were not aware of the kind of dog that would be brought to the classroom.

3. The class then divided into two groups and each group became responsible for a category of questions to be asked during the interview.

4. They decided on what question each one would ask the dog owner.

5.   A recorder for each group did up an interview
     question sheet containing all the questions with
     spaces to write notes during the interview. Each
     student's name was written by the appropriate
     question. This was copied for each student.

Time - 80 minutes.

Day 19

Chapter 18/Where, Oh Where...? was read after discussing
where Harry could have gone. The following questions from the
For Discussion section were then discussed.

1. How are Linnie and Darla alike?

2. Even though Darla is afraid of dogs, she offered to
    help look for Harry. What does this tell us about
    her?

3. Linnie's mother seemed to understand both girls.
    How do we know?

The students conducted the interview with the dog owner
using the interview question sheet. The dog (poodle) was also
present and the students had a chance to hold her.

Art was integrated with the theme on day 19. The
students did the activity called Word Pictures on page 189.
The author used the word slide in Chapter 17. The students
thought of other words that could be written in a form that
showed their meanings. The letters were cut out and pasted
on a contrasting background.

Time - 120 minutes.

Day 20

The students read and did the related activities for The
Secret of the Old Indian Grave. They finished this at home.
They then used the interview notes to collaboratively write
a report on Poodles. This report was placed in the class
library.

Time - 80 minutes.

Day 21

Chapter 19/Unhappy Birthday and Chapter 20/The Flash and
the Roar were read aloud after discussing that the fact today
was Linnie's birthday. They talked about what would make it
a happy day and what would make it an unhappy day. Following
this the For Discussion section was completed. This involved
discussing how Linnie found the courage to brave the storm by
eliciting from the students the idea that when it is necessary
to do something, we're surprised at what we can do. The class
also discussed the questions of what Darla would have done
when she found Harry, if she had not been brave and what Darla
and Linnie should have done when they found Harry. The
children also completed blackline master 7-6 which showed how
Linnie had changed from the beginning of the story to the end.

Time - 80 minutes.

Day 22

After discussing with the children how they would end the
story if they were the authors, the teacher read aloud up to
and including the paragraph, "Linnie didn't say that she had
seen it" from the last read aloud portion, Chapter 21/Many
Happy Returns. Then the Bringing the Story to Life on page
190 was done. The teacher had wrapped three presents in the
same way as those given to Linnie in the story. Instead of
reading the passage where she opened them, a student opened
the three presents.

The students completed the chart on the characters (In-
depth Look, page 191) in the story. They used the text to add
more information.

The students also did the writing activity on page 191.
The teacher recalled with the students that Linnie thought she
would write to Darla, discussed what she might have said, and
then the students wrote Linnie's letter.

Time - 80 minutes.

Day 23

The students discussed the fears Linnie and Darla
overcame during this novel. They recalled other stories they
knew in which someone conquered their fears. The students
then started presenting their book talks on the novels they
read related to the theme.

The **Bringing the Story to Life** activity on page 193 was completed. The students made chocolate-covered dog biscuits by dipping bite-sized shredded wheat in melted chocolate and allowing them to cool.

For evaluation purposes, the students completed blackline master 7-1 which was the same as one they had done at the beginning of the theme. The teacher compared the two to evaluate how much each child had learned during the reading of the novel. Blackline 7-7, which was a comprehension activity, was also done.

Time - 80 minutes.

Day 24

Students continued the book talks started on Day 23. They also conferenced with the teacher and did a book report. The students also chose one of the pieces they had written during this theme to read to the class.

The students also took part in an art activity from page 193. Each student illustrated a different chapter in the book (three students did two). The story was reviewed by having each student tell about his/her illustrations.

Time - 80 minutes.

Day 25

The students completed the activities related to the book The Thunder-Pup. Some did book talks, some conferenced with the teacher and some did the science experiments.

Time - 40 minutes.

Day 26

After a discussion, the students read and did related activities on the short story Mountain Mist. This was finished at home. The teacher evaluated these before the student filed them.

Time - 40 minutes.

Day 27

The short story Tornado was read by the students. After a discussion, the students worked on the related activities. The students then wrote a report on thunder and lightning using the research from Days 3 and 6. The research was discussed as a whole group activity before the students started their first draft.

Time - 80 minutes.

Day 28

The students continued with Tornado and the report on thunder and lightning.

Time - 40 minutes.

Day 29

The students were introduced to the life of Louis Braille as an example of a person who had to overcome fears. They read and did related activities on He Gave Windows to the Blind. The students also continued to work on their reports on thunder and lightning. The teacher was now conferencing.

Time - 80 minutes.

Day 30

The students read and did related activities on Little by Little. This story, an excerpt from an autobiography by Jean Little, gave the teacher the opportunity to highlight the differences betwen a biography such as He Gave Windows to the Blind and an autobiography.

The students continued their reports. They were now at the revising and editing stages.

Time - 80 minutes.

Day 31

The students finished Little by Little and published their reports on thunder and lightning by reading them aloud to the class.

Time — 40 minutes.

Day 32

The students read and did the related activities on The Bear Claw. After teacher evaluation, these activities were filed.

Time — 40 minutes.

Day 33 - Day 37

The students read and did related activities on a three episode story titled Night of the Twisters. They were introduced to how a story can be divided into sections for publishing in a magazine. The synopsis of part I that appeared in part II was examined and discussed as being a technique to refresh a reader's memory of what happened in the previous part, or to serve as an introduction to the second part for a reader who did not read the first part.

After reading part I, the students wrote their version of what would happen in the next two parts. This activity involved them in predicting. They wrote their version using the first person as was used in the story itself. They were encouraged to use dialogue as well (a technique they had previously been exposed to). They then read parts II and III to confirm or disconfirm their predictions. Their versions were taken through the whole writing process and were placed in the class library.

This finalized the theme Overcoming Fears. The children were given the opportunity to talk about what they had learned about fears, especially their own, during this theme.

List of Short Stories and Poetry Used For Exploration
of the Theme Overcoming Fears

Antle, N. (1987). Tornado! _Cricket_, 14 (10), 55-60.

Carlson, N.S. (1987). The secret of the old Indian grave. _Cricket_, 15 (2), 10-13.

Collard III, S.B. (1988). Mom runs away. _Children's Digest_, 38 (361), 40-45.

Giblin, J.C. (1987). Mother's day and the woman who started it. _Highlights_, 42 (5), 22-23.

Kuglemass, J.A. (1975). He gave windows to the blind. _The Reader's Digest Level 4 Part 2_, 105-114.

Little, J. (1988). Little by little, _Owl_, 13 (5), 22-27. (An excerpt from Little by Little, 1987).

Perian, J. (1987). The bear claw. _Cricket_, 15 (3), 30-34.

Ruckman, I. (1987). Night of the twisters, part I, _Cricket_, 14 (10), 44-49.

Ruckman, I. (1987). Night of the twisters, part I, _Cricket_, 14 (11), 43-48.

Ruckman, I. (1987). Night of the twisters, part I, _Cricket_, 14 (12), 55-60.

Sandlin, P. (1988). Mountain mist. _Highlights_, 43 (2), 18-19.

Sherman, J. (1987). Eagle woman's gift. _Cricket_, 14 (6), 14-17.

Silverstein, S. (1981). Fear. _A Light in the Attic_. New York: Harper and Row, Publishers Inc.

Steele, O.S. (1988). The white angel, _Cricket_, 15 (6), 28-33.

Thomas, M.C. (1985). Thunderstorm. _Highlights_, 40 (6), 6.

Wallace-Brodeur, R. (1986). The night the fears came. _Cricket_, 13 (5), 43-47.

Other Materials Used

Hickman, J. (1981). <u>The thunder-pup</u>. New York: MacMillan.
(Multiple Copies)

Mayers, M. (1968). <u>There's a nightmare in my closet</u>. New
York: Dial Press.

Malloch, J. & Malloch, I. (1986). <u>Books alive blackline
masters 4</u>. Toronto: Doubleday.

Malloch, J. & Malloch, I. (1986). <u>Books alive teacher's guide
4</u>. Toronto: Doubleday.

Annotated Bibliography of Related Literature (Fiction)
for Independent Reading

Bulla, C.R. (1975). <u>Shoeshine girl</u>. Toronto: Scholastic.

> Sarch Ida is unhappy and rebellious when she has to go
> to live with her Aunt Claudia for the summer in a place
> she has never visited before. She feels as if her
> parents don't love her. She learns a lot about herself
> during this summer.

Byars, B. (1973). <u>The 18th emergency</u>. New York: Avon.

> Benjie, nicknamed Mouse, has angered the toughest boy in
> the school. His friend Ezzie has told him all kinds of
> clever ways to avoid danger. At last Benjie faces up to
> fear and terror and honour, and solves the problem in a
> surprising way.

Byars, B. (1977). <u>The pinballs</u>. Toronto: Scholastic.

> Carlie is 15. She is cynical, suspicious, and gets
> regular beatings from her stepfather. Thomas J. is 8 and
> has been living with 88 year-old twins. Harvey is 13 and
> his legs were broken when his drunken father ran him down
> with the new car. They all end up in a foster home
> together. These are the pinballs.

Byars, B. (1981).   The Cybil war.   Toronto: Scholastic.

  Simon and Tony have been friends for over two years.
  They both like Cybil Ackerman very much and do all they
  can to become her best friends. Both Simon and Tony have
  to overcome fears inside themselves.

Cleary, B. (1975). Ramona the brave. Toronto: Scholastic.

  Ramona is in first grade and gets into a lot of trouble
  trying to "grow up".

Cohen, M. (1984). Born to dance samba. Toronto: Fitzhenry
  & Whiteside.

  At carnival time in Brazil, a girl who has spent her life
  wishing to be queen, must cope with the jealousy of a new
  girl who is her only competition.

Conford, E. (1973). Dreams of Victory. Toronto: Scholastic.

  Victory Bennek is a loser. She can't even win an
  election; she can't dance; she gets only a bit part in
  the class play. But she dreams of being a winner. She
  realizes something important about herself when she
  writes a composition for her teacher.

Dalgliesh, A. (1954). Courage of Sarah Nobel. New York:
  Charles Scribners.

  This is a true story of an eight-year old girl who
  travelled with her father into the wilds of Connecticut.
  She lived with an Indian family while her father went
  back for the family.

George, J.C. (1959). My side of the mountain. Toronto:
  Scholastic.

  Sam has decided to leave his family in the city and go
  to live alone in the forest for a whole year. All he has
  with him is a knife, some string, an axe, and flint and
  steel for making a fire. But he encounters many things
  he knows nothing about. Sam becomes scared.

Holland, B. (1979). _Run for your life_. Toronto: Scholastic.

> Josh, a timid boy from a modest family is kidnapped along
> with Polly, a girl from a wealthy home. The kidnappers
> take them to a shack in the country to wait for the
> ransom to be paid. Josh decided they must try to escape!

Hunter, B.T. (1984). _A place for Margaret_. Richmond Hill:
Scholastic-TAB.

> Margaret has lots of problems. Her biggest problem is
> she has T.B. and everybody avoids her. She has to spend
> a lonely summer stuck on her aunt and uncle's farm.
> There she finds out she has a fear of horses. She
> overcomes this fear and then has to make a choice between
> her family and her uncle and aunt.

Hurwitz, J. (1978). _What goes up must come down_. Toronto:
Scholastic.

> Margot's mother is afraid to go outside. As part of a
> science project Margot decides her project will be to
> tempt her mother back downstairs.

LaMonte Meadowcroft, E. (1948). _By secret railway_. Toronto:
Scholastic.

> The Underground Railroad is a secret route by which
> slaves find their way to freedom. It takes great courage
> in this year, 1860, to be a runaway slave or to help a
> slave escape. This is the story of two brave boys and
> the secret railway to freedom that played such a stirring
> part in American history.

Lane, C. (1985). _Ghost island_. Boston: Houghton Mifflin.

> Four girl campers are involved in a series of
> misadventures when they set out to spy on the boy's camp
> across the lake and end up marooned on Ghost Island
> instead.

LaPenta, H. (1971). <u>The cat that overcame</u>. Toronto: Scholastic.

Pinky is a little runt of a kitten nobody wants, for nobody thinks he is going to be worth much as a cat. Pinky has many misadventures before he meets Handy-Sandy.

Lunn, J. (1981). <u>The root cellar</u>. Markam, Ontario: Penguin.

Twelve year old Rose is very unhappy when she is sent to live with unknown relatives. She flees to the root cellar and climbs up <u>into</u> another century, the world of the 1840's and the chaos of the Civil War.

Mann, P. (1973). <u>My dad lives in a downtown hotel</u>. Toronto: Scholastic.

Joey feels it is his fault that his dad and mom are no longer living together. What can he do to get them together again?

Martin, A.M. (1984). <u>Stage fright</u>. New York: Holiday House.

Shy Sara panics when her fourth-grade teacher announces that her class is to perform a play before the entire school. She eventually learns that stage fright can be healthy.

McMurty, S. (1977). <u>The bungee venture</u>. Toronto: Scholastic.

Karen and Andy's dad invents a time machine that sends him back to the pre-historic world. They decide to try and rescue him. They encounter a 120 million year old monster!

Moeri, L. (1986). <u>Journey to the treasure</u>. Toronto: Scholastic.

Victoria's grandfather disappears and she is the only one who knows where he's gone. With the help of Trevor, a boy from school, Victoria sets off into the mountains to find her grandfather. They both know they can't give up.

Morey, W. (1965). <u>Gentle Ben</u>. New York: Avon.

> Mark Anderson's only friend is Ben, the Alaskan Brownie cub chained up in Fog Benson's dark shed. But there are some people in town who just can't understand and are determined to get rid of Ben. There is danger and excitement for Mark as he struggles to save his gentle friend by overcoming the peoples' fear and suspicion.

Oliver, S.R. (1983). <u>Phantom by the sea</u>. Minneapolis: Carolrhoda.

> Googer and his friend Giller are ten year old ghost hunters. Will they find a ghost in the 150 year old house that creaks and groans especially when the thunder rumbles and the ocean roars?

Sachs, M. (1965). <u>Laura's luck</u>. Toronto: Scholastic.

> Laura hates the idea of leaving home and she hates sports. She's just not good at them. What can she do when her parents send her to summer camp?

Sharmat, M.W. (1976). <u>The lancelot closes at five</u>. Toronto: Scholastic.

> Abby arranges it so that she and her friend Hutch can remain alone at night in a model home called the Lancelot. Hutch wonders if it is safe to do so.

Shreve, S. (1984). <u>The flunking of Joshua Bates</u>. Toronto: Scholastic.

> Joshua thinks maybe he's going to have to spend the rest of his life in third grade. But that was before he met Miss Goodwin. Joshua learns that friends can come in funny shapes.

Shyer, M.F. (1978). <u>Welcome home, jellybean</u>. Toronto:
   Scholastic.

   Gerri is a retarded thirteen year old who has spent most
   of her life in an institution. Now she is coming home
   to live. Gerri's family wants to help her, but they're
   almost ready to give up. And if they give up on Gerri,
   who else has she got.

Speare, E.G. (1958). <u>The witch of blackbird pond</u>. New York:
   Dell.

   Kit Tyler has left the Caribbean island, to live in
   Connecticut in a Puritan colony. She meets a mysterious
   old woman known as the witch of Blackbird Pond. But when
   their friendship is discovered, Kit is faced with
   suspicion, fear, and anger. She herself is accused of
   witchcraft.

Speare, E.G. (1983). <u>The sign of the beaver</u>. Boston:
   Houghton Mifflin.

   Matt is left alone to guard the family's wilderness home
   in eighteenth-century Maine. He becomes afraid when his
   father doesn't return when he is supposed to.

Sperry, A. (1963). <u>Call it courage</u>. Toronto: Scholastic.

   Mafatu, a young Polynesian boy, has been terrified of the
   sea since he nearly drowned with his mother at the age
   of three. His name means Boy who was Afraid! Can he
   overcome this fear?

Tennant, V. (1977). <u>On stage please</u>. Toronto: McClelland
   and Stewart.

   Jennifer dreams of becoming a professional dancer.
   Despite many setbacks, she succeeds.

Thiele, C. (1978). <u>Storm boy</u>. New York: Harper and Row.

Since the death of his mother, Storm Boy and his father
have lived near a seaside sanctuary in Australia. Storm
Boy and his pet rescue a tugboat grounded off shore.

White, E.B. (1952). <u>Charlotte's web</u>. New York: Harper and
Row.

This is a story of a little girl named Fern who loved a
little pig named Wilbur. It is also about Wilbur's dear
friend, a beautiful large grey spider named Charlotte.
When Wilbur's life is in danger, Charlotte plans to save
his life.

White, E.B. (1970). <u>The trumpet of the swan</u>. New York:
Harper and Row.

Louis, a trumpeter swan who can't make a sound, is
befriended by a young boy named Sam. Louis has many
misadventures before he finally finds what he wants.

York, C.B. (1977). <u>Mystery at dark wood</u>. Toronto:
Scholastic.

Someone's trying to frighten Jamie's Aunt Cassie. With
some clever detective work, Jamie finds the answers to
the mystery - stored away in the dusty, cluttered cellar
of Dark Wood.

List of Non-fiction Books Related to the Theme

Arnold, C. (1983). _Pets without homes_. Boston: Clarion. (Photos by Richard Hewett).

DePaola, T. (1977). _Cloud book_. Toronto: Scholastic.

Faulkner, M. (1979). _I skate_. Toronto: Little Brown.

Hewer, K. (1981). _Thunder, singing sands, and other wonders: Sound on the atmosphere_. New York: Dodd Meade (Teacher Reference).

Ingman, N. (1978). _Gifted children of music_. London: Ward Lock.

September 5, 1986

Mr. N. J. Kettle
District Superintendent
Port aux Basques Integrated School Board
P. O. Box 970
Port aux Basques, NF
A0M 1C0

Dear Mr. Kettle:

As you are aware, I am working on a masters degree in curriculum and instruction from Memorial University. I have completed six out of the eight courses I need to fulfill the requirements of the program. The other component of the program that I have to complete is a thesis.

During the past summer I studied under Doctor Jeffrey Bulcock, a renowned researcher in education. Through my work in his course I was able to obtain a tentative thesis topic. He introduced me to his wife, Doctor Mona Biebe, who is a reading specialist with the Department of Curriculum and Instruction at Memorial and she agreed to be the supervisor for my thesis.

While in summer school, after failing to contact you, I contacted Mr. Crewe and he told me that he felt the school board would permit me to carry out a two year study for my thesis in my classroom in Cape Ray. This year will be my control year and I will be testing my students in certain areas during October, January, and May. Next year would be my experimental year and during this time I would put in my experimental treatment which I have talked to Mr. Sipe about and he is willing to assist me in doing this.

Basically what I plan to do is compare teaching reading using the traditional basal reader approach with using a whole language approach that would encorporate literature based teaching of reading. Again I would test three times.

I am writing to you to ask your permission to go ahead with this project. If you have any questions concerning this please call me and I will gladly answer them for you.

Yours sincerely.

Edith Smith

Edith Smith

Commission Scolaire de

Port aux Basques

Integrated School Board

September 8, 1986

Mrs. Edith Smith
St. John the Evangelist
Cape Ray, NF
A0N 1C0

Dear Mrs. Smith:

    I am pleased you are working towards a Masters Degree
in curriculum and instruction. Accordingly, you are
permitted to carry out a two year study for your thesis in
your classroom at St. John the Evangelist School at Cape
Ray.

                    Yours sincerely,

                    N. J. Kettle
                    DISTRICT SUPERINTENDENT

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Telephone: 695 - 3422
          695 - 2530

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